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Keystone Steel & Wire
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WW Engineering & Science
A Summit Company



1000721

Certified No. P 279 765 772

January 31, 1994

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Mr. Ralph P. End, Esq.
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Keystone Consolidated Industries, Inc.
Three Lincoln Centre
5430 LBJ Freeway
Suite 1740
Dallas, Texas 75240

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WMD RECORD CENTER

MAY 04 1994

Gentlemen:

RE: People of the State of Illinois vs
~~Keystone Consolidated Industries, Inc.~~
Case No. 93 CH 000103
(Quarterly Ground Water Remediation Program Technical Memorandum for November
1993 Sampling)

In accordance with Section XIX Notices of the Consent Order, enclosed is the above-referenced report as specified in VI 28.A.vi. of the Consent Order. Three copies of this document are being submitted to Mr. Lawrence Eastep and one copy each is being submitted to the remaining addressees. We are also sending one copy (Certified Mail) to Mr. Ken Lovett of the Illinois Environmental Protection Agency, Permit Section.

Sincerely,

Robert E. Aten

Robert E. Aten
Vice President

FEB - 3 1994

PERMIT SECTION

cc: K. Lovett
R. Miller (w/o Appendix)
D. Semelroth (w/o Appendix)
A. Running (w/o Appendix)
E. Breland (w/o Appendix)

1430050001-Peoria Co.
Keystone Steel & Wire
IL 000714881

USEPA/T

WW Engineering & Science
A Summit Company

Certified No. P 279 765 891

October 25, 1993

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Attorney General, State of Illinois
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100 W. Randolph Street, 12th Floor
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Dallas, Texas 75240

RECEIVED
WMD RECORD CENTER

APR 19 1994

Gentlemen:

RE: People of the State of Illinois vs
Keystone Consolidated Industries, Inc.
Case No. 93 CH 000103
(Quarterly Ground Water Remediation Program Technical Memorandum for August
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Sincerely,

Robert E. Aten **RECEIVED**

Robert E. Aten
Vice President

OCT 28 1993

cc: K. Lovett
R. Miller (w/o Appendix)
D. Semelroth (w/o Appendix)
A. Running (w/o Appendix)
E. Breland (w/o Appendix)

IL DNR
PERMIT SECTION

USEPA IV

October 31, 1994

Certified No. P 891 590 179

Mr. Michael K. Franklin
 Attorney General, State of Illinois
 Environmental Control Division
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 100 W. Randolph Street, 12th Floor
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Mr. Dale L. Bennington, P.E.
 Manager, Energy and Environmental Engineering
 Keystone Steel & Wire Company
 7000 S.W. Adams Street
 Peoria, Illinois 61641

Gentlemen:

RE: People of the State of Illinois vs
 Keystone Consolidated Industries, Inc.
 Case No. 93 CH 000103
 (Quarterly Ground Water Remediation Program Technical Memorandum for August
 1994 Sampling)

In accordance with Section XIX Notices of the Consent Order, enclosed is the above-referenced report as specified in VI 28.A.vi. of the Consent Order. Three copies of this document are being submitted to Mr. Lawrence Eastep and one copy each is being submitted to the remaining addressees. We are also sending one copy (Certified Mail) to Mr. Ken Lovett of the Illinois Environmental Protection Agency, Permit Section.

Sincerely,

EARTH TECH

Robert E. Aten

Robert E. Aten
 Vice President

cc: K. Lovett
 R. Miller (w/o Appendix)
 D. Semelroth (w/o Appendix)
 A. Running (w/o Appendix)
 E. Breland (w/o Appendix)



Formerly WW Engineering & Science

Illinois Environmental Protection Agency
 Mr. Lawrence W. Eastep, P.E.
 Manager, Permit Section
 Division of Land Pollution Control, #33
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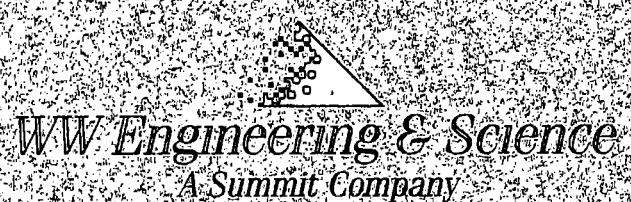
*1430050001 - Peoria Co
 Keystone Steel & Wire
 16000714881*

*RECEIVED
 NOV 3 - 1994
 PERMIT SECTION*

QUARTERLY GROUND WATER REMEDIATION
PROGRAM TECHNICAL MEMORANDUM
FOR NOVEMBER 1993

KEYSTONE STEEL & WIRE COMPANY
BARTONVILLE, ILLINOIS

JANUARY 1994



**QUARTERLY GROUND WATER REMEDIATION
PROGRAM TECHNICAL MEMORANDUM
FOR NOVEMBER 1993**

**KEYSTONE STEEL & WIRE COMPANY
BARTONVILLE, ILLINOIS**

JANUARY 1994

TECHNICAL MEMORANDUM

DATE: January 31, 1994

TO: Ken Lovett
Illinois Environmental Protection Agency
Permit Section
Division of Land Pollution Control
2200 Churchill Road
Springfield, IL 62794-9276

RECEIVED

FROM: Robert E. Aten
WW Engineering & Science
5010 Stone Mill Road
Bloomington, IN 47408

FEB - 3 1994

PERMIT SECTION

RE: Keystone Steel & Wire Company
Quarterly Ground Water Remediation Program Technical Memorandum,
November 1993 Sampling Event

This memorandum includes all November 1993 quarterly ground water analytical data (Table 1) for the Keystone TCE ground water remediation program, and the ground water and surface water elevation data for October, November, and December 1993 (Table 2). A piezometric surface map for the November 15, 1993 ground water measurements is shown on Figure 1, and concentration maps for TCE, 1,1,1-trichloroethane and total volatiles are presented on Figures 2, 3 and 4, respectively. All sampling and analytical procedures were consistent with the sampling plan presented in the Keystone Ground Water Remediation Program report submitted June 15, 1992, and the Proposed Ground Water Management Zone request submitted July 16, 1993.

All analytical results were validated using SW 846 protocols and the data have been qualified accordingly on Table 1. A letter from the project chemist discussing data validation is included in the Appendix. Also included in the Appendix are the laboratory data

sheets documenting dates of analyses and analytical methods, and the chain of custody forms documenting date and time of sampling. A complete copy of the data validation package is retained in our office and at the analytical laboratory. Part or all of the QA/QC data will be provided upon request.

The piezometric surface map (Figure 1) reveals that ground water flow directions are consistent with previous data and that the ground water gradient is somewhat less (nearly flat) than during previous sampling events in the area of the contaminant plume. Water level elevations are about one to two feet lower in November 1993 than they were in August 1993.

Contaminant concentrations are consistent with previously reported data and the configuration of the contaminant plume is nearly the same as that reported for August 1993.

On January 13, 1994, we were notified by the analytical laboratory that an error had been made in reporting previous quarterly data. Carbon tetrachloride had been reported as being present in some ground water samples since November 1992 quarterly sampling. Carbon tetrachloride is not present and should have been reported as <5 ug/L. The January 13, 1994 letter from the lab with an attached table of corrected data is included in the Appendix. A detailed explanation of the computer mis-identification of carbon tetrachloride was provided by Michael Ryder in a letter dated January 27, 1994 (Appendix).

A new summary table of the occurrence of volatile organic compounds (VOCs) in ground water is being prepared and will be included in the next quarterly report. This new summary table will present all VOC data obtained prior to the startup of the ground water remediation system.

The construction of the ground water remediation system was completed in December 1993 and equipment prove-in was accomplished the first three weeks of January 1994. The air stripping system was in full operation on January 25, 1994. No significant changes were made

in the proposed construction plans. Section XII 46.A.ii. specifies that the air stripper system shall be in operation eight months after receipt of Agency air and water permits. The NPDES permit was received on June 29, 1993. The air stripper was in operation about five weeks ahead of the milestone established in the Consent Order.

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
NOVEMBER 15-17, 1993

INVESTIGATIVE WELLS

WELL NUMBER	W-1D Rep	W-2	W-3D	W-4D	T-1	T-2A	T-3	T-4A
Temperature, field (C)	13.2	13.2	13.0	14.5	13.5	12.5	13.5	14.0
pH, field	6.6	NA	6.3	6.7	6.7	6.4	6.5	6.7
SpC (at 25 C)	1800	NA	1900	2800	1500	5200	2000	930
VOLATILES (ug/L)								
1,1-Dichloroethane	<10	<10	700	<15	<5	<25	5	34
1,1-Dichloroethylene	74	76	170	22	<5	<25	16	370
1,2-Dichloroethylene (total)	26	25	<25	17	7	67	12	120
Tetrachloroethylene	<10	<10	<25	<15	<5	<25	<5	<10
1,1,1-Trichloroethane	62	61	<25	57	5	<25	10	650
Trichloroethylene	380	380	<25	370	110	860	180	350

INVESTIGATIVE WELLS

WELL NUMBER	T-4B	T-6A	T-6B	T-7B	T-9	T-10	T-11B	T-11C	T-13B
Temperature, field (C)	16.0	13.0	14.0	18.0	15.5	16.5	19.0	15.0	14.0
pH, field	6.8	6.1	6.8	6.6	6.9	6.2	6.7	6.8	6.0
SpC (at 25 C)	200	1400	1500	1600	1500	6400	2600	2100	13,000
VOLATILES (ug/L)									
1,1-Dichloroethane	<10	46	5	<90	25	<25	<5	<5	<9
1,1-Dichloroethylene	35	89	11	<90	130	<25	<5	<5	<9
1,2-Dichloroethylene (total)	<10	<25	7	<90	6	180	8	<5	150
Tetrachloroethylene	<10	<25	<5	<90	46	<25	<5	<5	<9
1,1,1-Trichloroethane	<10	380	20	<90	69	<25	<5	<5	<9
Trichloroethylene	330	<25	82	1900	36	930	36	47	55

NA - not analyzed

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
NOVEMBER 15-17, 1993

INVESTIGATIVE WELLS

WELL NUMBER	T-20					
	T-16	T-17	T-19C	T-20	Rep	T-23
Temperature, field (C)	10.0	14.0	9.0	14.0	14.0	9.0
pH, field	6.5	7.0	6.9	6.4	NA	6.9
SpC (at 25 C)	3700	1100	2700	3800	NA	3400
VOLATILES (ug/L)						
1,1-Dichloroethane	<5	<100	<5	<5	<5	<5
1,1-Dichloroethylene	<5	570	<5	<5	<5	<5
1,2-Dichloroethylene (total)	48	<100	<5	<5	<5	<5
Tetrachloroethylene	<5	270	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	2200	<5	<5	<5	<5
Trichloroethylene	580	340	16	10	10	8

BASE WELLS

WELL NUMBER	T-2B								
	T-5A	T-5B	T-5C	T-6C	T-7A	T-8	T-11A	T-14	
Temperature, field (C)	13.5	15.0	16.0	14.0	12.0	19.0	14.0	15.5	13.0
pH, field	6.3	6.7	6.8	6.6	6.6	6.3	6.9	6.9	6.7
SpC (at 25 C)	4200	1200	2200	3600	3500	2500	1800	1200	2500
VOLATILES (ug/L)									
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethylene (total)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5

NA - not analyzed

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
NOVEMBER 15-17, 1993
BASE WELL

WELL NUMBER	Rep.	T-14							
		T-18	T-19A	T-19B	T-21	T-22A	T-22B	T-25A	T-25B
Temperature, field (C)	NA	13.0	9.0	9.0	14.0	8.0	9.0	9.0	9.0
pH, field	NA	6.9	7.5	7.0	6.5	7.3	7.6	7.0	6.7
SpC (at 25 C)	NA	890	940	1400	2100	680	1000	1200	1900
VOLATILES (ug/L)									
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethylene (total)	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<5	<5	<5	<5	<5	<5	<5	<5	<5

WELL NUMBER	UPGRADIENT WELL			BLANKS		TRIP BLANKS	
	T-15	130	207	322	Blank	Trip	Blank
Temperature, field (C)	13.0		NA	NA	NA	NA	NA
pH, field	6.9		NA	NA	NA	NA	NA
SpC (at 25 C)	1100		NA	NA	NA	NA	NA
VOLATILES (ug/L)							
1,1-Dichloroethane	<5		<5	<5	<5	<5	<5
1,1-Dichloroethylene	<5		<5	<5	<5	<5	<5
1,2-Dichloroethylene (total)	<5		<5	<5	<5	<5	<5
Tetrachloroethylene	<5		<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5		<5	<5	<5	<5	<5
Trichloroethylene	<5		<5	<5	<5	<5	<5

NA - not analyzed

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			October 28, 1993	
T-1	453.57	49.23	9.45	444.12
T-2A	450.11	44.26	5.68	444.43
T-2B	450.25	66.90	5.85	444.40
T-3	450.57	60.70	6.07	444.50
T-4A	449.42	27.24	5.18	444.24
T-4B	449.44	79.30	4.85	444.59
T-5A	448.04	33.16	3.62	444.42
T-5B	448.27	66.08	3.93	444.34
T-5C	448.21	82.84	4.17	444.04
T-6A	451.67	19.63	6.65	445.02
T-6B	451.72	34.94	7.44	444.28
T-6C	452.00	55.16	7.73	444.27
T-7A	448.55	18.18	6.32	442.23
T-7B	448.56	81.75	3.83	444.73
T-8	451.00	31.61	8.84	442.16
T-9	459.85	35.47	11.97	447.88
T-10	456.60	40.62	12.26	444.34
T-11A	451.12	40.98	7.26	443.86
T-11B	451.39	82.66	6.73	444.66
T-11C	451.23	99.21	6.45	444.78
T-12	444.93	37.64	Abandoned	
T-13A	464.25	27.64	18.20	446.05
T-13B	464.44	32.03	18.31	446.13
T-14	452.47	102.05	7.85	444.62
T-15	454.70	20.25	7.77	446.93
T-16	450.51	41.96	6.70	443.81
T-17	461.62	41.90	18.75	442.87
T-18	462.92	32.02	15.71	447.21
T-19A	448.74	11.84	4.98	443.76
T-19B	449.45	39.83	5.45	444.00
T-19C	448.46	70.43	4.50	443.96
T-20	455.97	47.44	11.75	444.22
T-21	468.82	17.70	10.05	458.77
T-22A	447.97	68.56	NA	
T-22B	447.37	119.29	NA	
T-23	451.70	87.59	7.90	443.80
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	8.37	444.28
T-25B	453.65	94.23	8.68	444.97
P-1A	450.86	34.80	6.35	444.51
P-1B	450.75	71.26	6.35	444.40
P-2	459.71	92.43	14.95	444.76

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			October 28, 1993	
P-3	447.27	39.37		NC
P-4	447.23	68.41		NC
P-5	447.11	69.97		NC
P-6	446.90	67.14		NC
P-7			6.65	
P-8	450.80		6.05	
P-9	450.38		6.50	
PW-1	448.62	80.99		NC
W-1	449.85	8.96	6.28	443.57
W-1D	448.82	50.28	5.34	443.48
W-2	451.79	12.24	7.65	444.14
W-2D	451.33	50.04	7.95	443.38
W-3	447.14	9.17	0.90	446.24
W-3D	446.94	50.34	1.40	445.54
W-4	450.67	9.97	5.15	445.52
W-4D	449.44	50.29	5.59	443.85
W-5	464.02	22.26	17.34	446.68
W-5D	463.76	36.22	17.72	446.04
W-6	461.38	10.06	5.11	456.27
W-7	459.21	14.51	4.30	454.91
W-8	455.01	16.66	9.00	446.01
W-9	449.78	14.85	6.30	443.48
W-10	451.33	14.74	7.90	443.43
W-11	450.15	14.87	5.20	444.95
W-12	460.38	21.04	13.06	447.32
W-13	459.62	24.62	11.30	448.32
W-14	460.75	20.77	8.38	452.37
W-15	451.80	12.35	4.51	447.29
W-16	451.77	12.11	4.80	446.97
W-17	452.73	12.13	4.40	448.33
W-18	451.08	12.26	4.12	446.96
AD-1	449.02	16.06		NC
AD-2	447.90	13.16		NC
AD-3	447.60	15.90		NC
AD-4	447.93	13.23		NC
AD-5	447.57	15.87		NC
CL-1	450.13	19.20	3.73	446.40
CL-2	450.10	20.11	4.89	445.21
CL-3	450.27	23.63	3.83	446.44

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: October 28, 1993				
CL-4	450.56	23.29	3.95	446.61
CL-5	453.74	27.04	7.32	446.42

NA = Well not accessable

NC = Not collected

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			November 15, 1993	
T-1	453.57	49.23	10.42	443.15
T-2A	450.11	44.26	6.70	443.41
T-2B	450.25	66.90	6.88	443.37
T-3	450.57	60.70	7.15	443.42
T-4A	449.42	27.24	6.13	443.29
T-4B	449.44	79.30	5.95	443.49
T-5A	448.04	33.16	4.60	443.44
T-5B	448.27	66.08	4.81	443.46
T-5C	448.21	82.84	5.23	442.98
T-6A	451.67	19.63	7.45	444.22
T-6B	451.72	34.94	8.42	443.30
T-6C	452.00	55.16	8.71	443.29
T-7A	448.55	18.18	6.17	442.38
T-7B	448.56	81.75	5.00	443.56
T-8	451.00	31.61	9.15	441.85
T-9	459.85	35.47	16.64	443.21
T-10	456.60	40.62	13.32	443.28
T-11A	451.12	40.98	7.83	443.29
T-11B	451.39	82.66	7.88	443.51
T-11C	451.23	99.21	7.75	443.48
T-12	444.93	37.64	Abandoned	
T-13A	464.25	27.64	NC	
T-13B	464.44	32.03	19.00	445.44
T-14	452.47	102.05	9.02	443.45
T-15	454.70	20.25	6.56	448.14
T-16	450.51	41.96	7.37	443.14
T-17	461.62	41.90	19.52	442.10
T-18	462.92	32.02	16.28	446.64
T-19A	448.74	11.84	5.40	443.34
T-19B	449.45	39.83	6.40	443.05
T-19C	448.46	70.43	5.50	442.96
T-20	455.97	47.44	12.75	443.22
T-21	468.82	17.70	13.06	455.76
T-22A	447.97	68.56	3.40	444.57
T-22B	447.37	119.29	3.62	443.75
T-23	451.70	87.59	8.83	442.87
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	9.50	443.15
T-25B	453.65	94.23	9.56	444.09
P-1A	450.86	34.80	7.60	443.26
P-1B	450.75	71.26	7.33	443.42
P-2	459.71	92.43	16.44	443.27

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			November 15, 1993	
P-3	447.27	39.37		NC
P-4	447.23	68.41		NC
P-5	447.11	69.97		NC
P-6	446.90	67.14		NC
P-7			7.55	
P-8	450.80		7.00	443.80
P-9	450.38		7.40	442.98
PW-1	448.62	80.99		
W-1	449.85	8.96	6.12	443.73
W-1D	448.82	50.28	5.28	443.54
W-2	451.79	12.24	8.13	443.66
W-2D	451.33	50.04	7.98	443.35
W-3	447.14	9.17	2.25	444.89
W-3D	446.94	50.34	3.45	443.49
W-4	450.67	9.97	5.74	444.93
W-4D	449.44	50.29	6.36	443.08
W-5	464.02	22.26	18.08	445.94
W-5D	463.76	36.22	18.32	445.44
W-6	461.38	10.06	7.84	453.54
W-7	459.21	14.51	4.38	454.83
W-8	455.01	16.66	9.25	445.76
W-9	449.78	14.85	6.10	443.68
W-10	451.33	14.74	8.24	443.09
W-11	450.15	14.87	5.57	444.58
W-12	460.38	21.04	13.10	447.28
W-13	459.62	24.62	11.77	447.85
W-14	460.75	20.77	8.53	452.22
W-15	451.80	12.35	5.40	446.40
W-16	451.77	12.11	5.72	446.05
W-17	452.73	12.13	4.86	447.87
W-18	451.08	12.26	4.57	446.51
AD-1	449.02	16.06	3.68	445.34
AD-2	447.90	13.16	3.51	444.39
AD-3	447.60	15.90	1.72	445.88
AD-4	447.93	13.23	1.81	446.12
AD-5	447.57	15.87	1.64	445.93
CL-1	450.13	19.20	3.88	446.25
CL-2	450.10	20.11	3.95	446.15
CL-3	450.27	23.63	4.01	446.26

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: November 15, 1993				
CL-4	450.56	23.29	4.09	446.47
CL-5	453.74	27.04	7.30	446.44

NA = Well not accessable
NC = Not collected

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: December 17, 1993				
T-1	453.57	49.23	10.10	443.47
T-2A	450.11	44.26	6.36	443.75
T-2B	450.25	66.90	6.60	443.65
T-3	450.57	60.70	7.00	443.57
T-4A	449.42	27.24	5.75	443.67
T-4B	449.44	79.30	5.77	443.67
T-5A	448.04	33.16	4.27	443.77
T-5B	448.27	66.08	4.65	443.62
T-5C	448.21	82.84	4.90	443.31
T-6A	451.67	19.63	7.66	444.01
T-6B	451.72	34.94	8.05	443.67
T-6C	452.00	55.16	8.38	443.62
T-7A	448.55	18.18	6.33	442.22
T-7B	448.56	81.75	4.95	443.61
T-8	451.00	31.61	8.60	442.40
T-9	459.85	35.47	16.28	443.57
T-10	456.60	40.62	12.92	443.68
T-11A	451.12	40.98	7.25	443.87
T-11B	451.39	82.66	7.83	443.56
T-11C	451.23	99.21	7.75	443.48
T-12	444.93	37.64	Abandoned	
T-13A	464.25	27.64	18.61	445.64
T-13B	464.44	32.03	18.80	445.64
T-14	452.47	102.05	9.10	443.37
T-15	454.70	20.25	6.90	447.80
T-16	450.51	41.96	7.03	443.48
T-17	461.62	41.90	18.90	442.72
T-18	462.92	32.02	16.00	446.92
T-19A	448.74	11.84	5.13	443.61
T-19B	449.45	39.83	5.98	443.47
T-19C	448.46	70.43	5.01	443.45
T-20	455.97	47.44	12.38	443.59
T-21	468.82	17.70	12.84	455.98
T-22A	447.97	68.56	Inaccessible	
T-22B	447.37	119.29	Inaccessible	
T-23	451.70	87.59	8.38	443.32
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	9.00	443.65
T-25B	453.65	94.23	9.25	444.40
P-1A	450.86	34.80	7.20	443.66
P-1B	450.75	71.26	7.10	443.65
P-2	459.71	92.43	16.32	443.39

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: December 17, 1993				
P-3	447.27	39.37		NC
P-4	447.23	68.41		NC
P-5	447.11	69.97		NC
P-6	446.90	67.14		NC
P-7			6.30	
P-8	450.80		6.75	444.05
P-9	450.38		7.05	443.33
PW-1	448.62	80.99		NC
W-1	449.85	8.96	6.20	443.65
W-1D	448.82	50.28	5.02	443.80
W-2	451.79	12.24	8.00	443.79
W-2D	451.33	50.04	7.65	443.68
W-3	447.14	9.17	3.15	443.99
W-3D	446.94	50.34	3.20	443.74
W-4	450.67	9.97	5.45	445.22
W-4D	449.44	50.29	6.00	443.44
W-5	464.02	22.26	17.60	446.42
W-5D	463.76	36.22	18.82	444.94
W-6	461.38	10.06	7.81	453.57
W-7	459.21	14.51	4.30	454.91
W-8	455.01	16.66	8.82	446.19
W-9	449.78	14.85	6.30	443.48
W-10	451.33	14.74	8.00	443.33
W-11	450.15	14.87	5.33	444.82
W-12	460.38	21.04	12.97	447.41
W-13	459.62	24.62	11.62	448.00
W-14	460.75	20.77	8.50	452.25
W-15	451.80	12.35	4.88	446.92
W-16	451.77	12.11	4.87	446.90
W-17	452.73	12.13	4.10	448.63
W-18	451.08	12.26	3.92	447.16
AD-1	449.02	16.06		NC
AD-2	447.90	13.16		NC
AD-3	447.60	15.90		NC
AD-4	447.93	13.23		NC
AD-5	447.57	15.87		NC
CL-1	450.13	19.20	4.05	446.08
CL-2	450.10	20.11	3.99	446.11
CL-3	450.27	23.63	4.20	446.07

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: December 17, 1993				
CL-4	450.56	23.29	4.33	446.23
CL-5	453.74	27.04	7.70	446.04

NA = Well not accessible
NC = Not collected

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE:	October 28, 1993		
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	>4.75	<443.14
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	>3.88	<445.14
TBM-4E	452.28	Destroyed	
TBM-4W	449.19	>4.55	<444.64
TBM-4S	445.68	M	
TBM-6E	459.83	Destroyed	
TBM-6W	459.60	4.60	455.00
TBM-8	447.25	Destroyed	
TBM-9	446.88	>4.50	<442.38
TBM-10	449.98	M	
TBM-10E	450.61	3.30	447.31
TBM-11	447.22	0.50	446.72
TBM-12	443.44	>4.00	<439.44
Illinois River Peoria Lock & Dam upper pool			445.38
lower pool			445.28

1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE:		November 15, 1993	
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	>4.75	<443.14
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	>3.88	<445.14
TBM-4E	452.28	Destroyed	
TBM-4W	449.19	>4.55	<444.64
TBM-4S	445.68	M	
TBM-6E	459.83	Destroyed	
TBM-6W	459.60	4.62	454.98
TBM-8	447.25	Destroyed	
TBM-9	446.88	M	
TBM-10	449.98	M	
TBM-10E	450.61	3.36	447.25
TBM-11	447.22	0.75	446.47
TBM-12	443.44	>4.00	<439.44
 Illinois River Peoria Lock & Dam upper pool		439.56	
lower pool		439.46	

1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE:	December 17, 1993		
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	>4.75	<443.14
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	>3.88	<445.14
TBM-4E	452.28	Destroyed	
TBM-4W	449.19	>4.55	<444.64
TBM-4S	445.68	M	
TBM-6E	459.83	Destroyed	
TBM-6W	459.60	4.70	454.90
TBM-8	447.25	Destroyed	
TBM-9	446.88	>4.50	<442.38
TBM-10	449.98	M	
TBM-10E	450.61	3.25	447.36
TBM-11	447.22	1.00	446.22
TBM-12	443.44	2.90	440.54

Illinois River
Peoria Lock & Dam
upper pool
lower pool

1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.

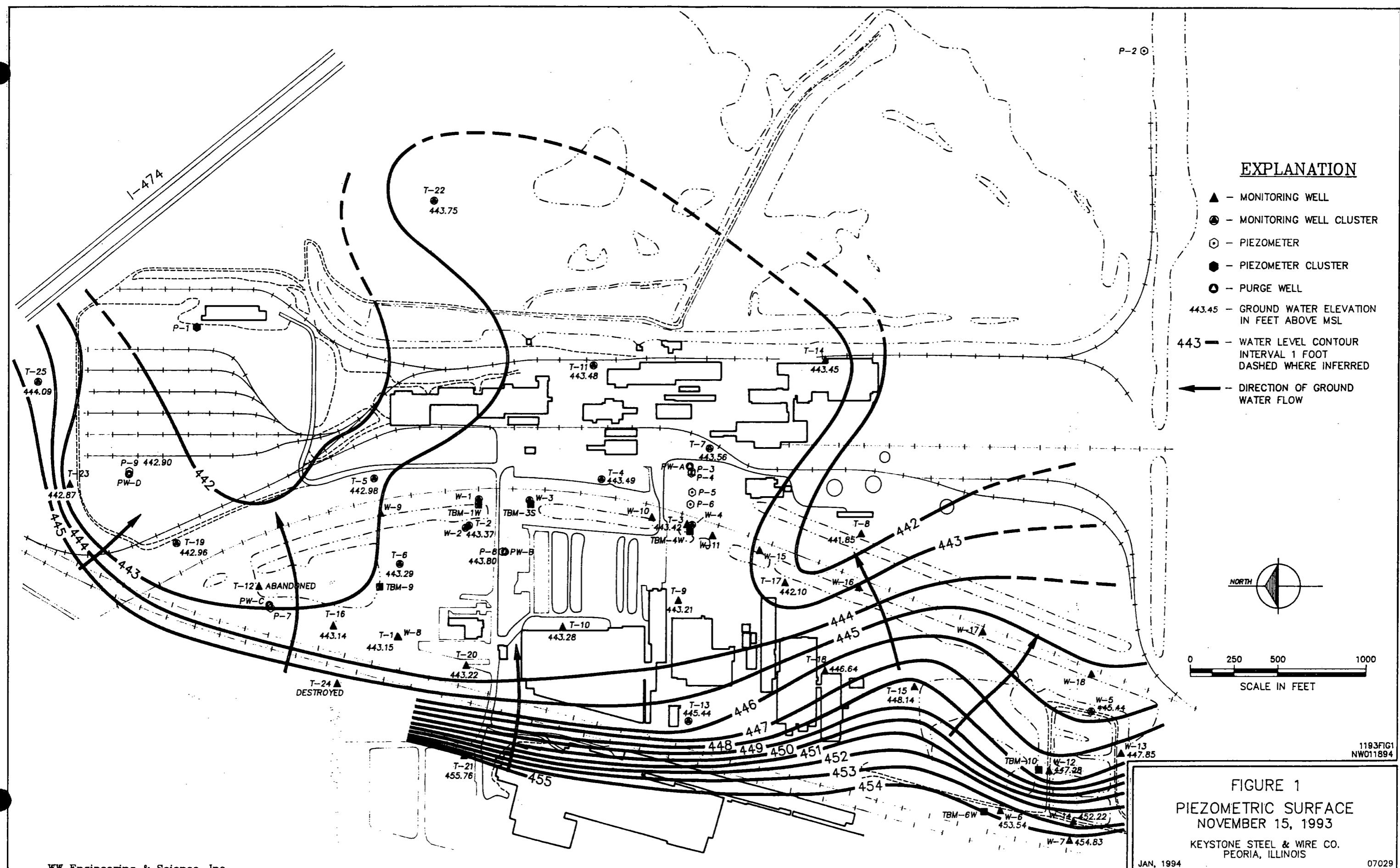


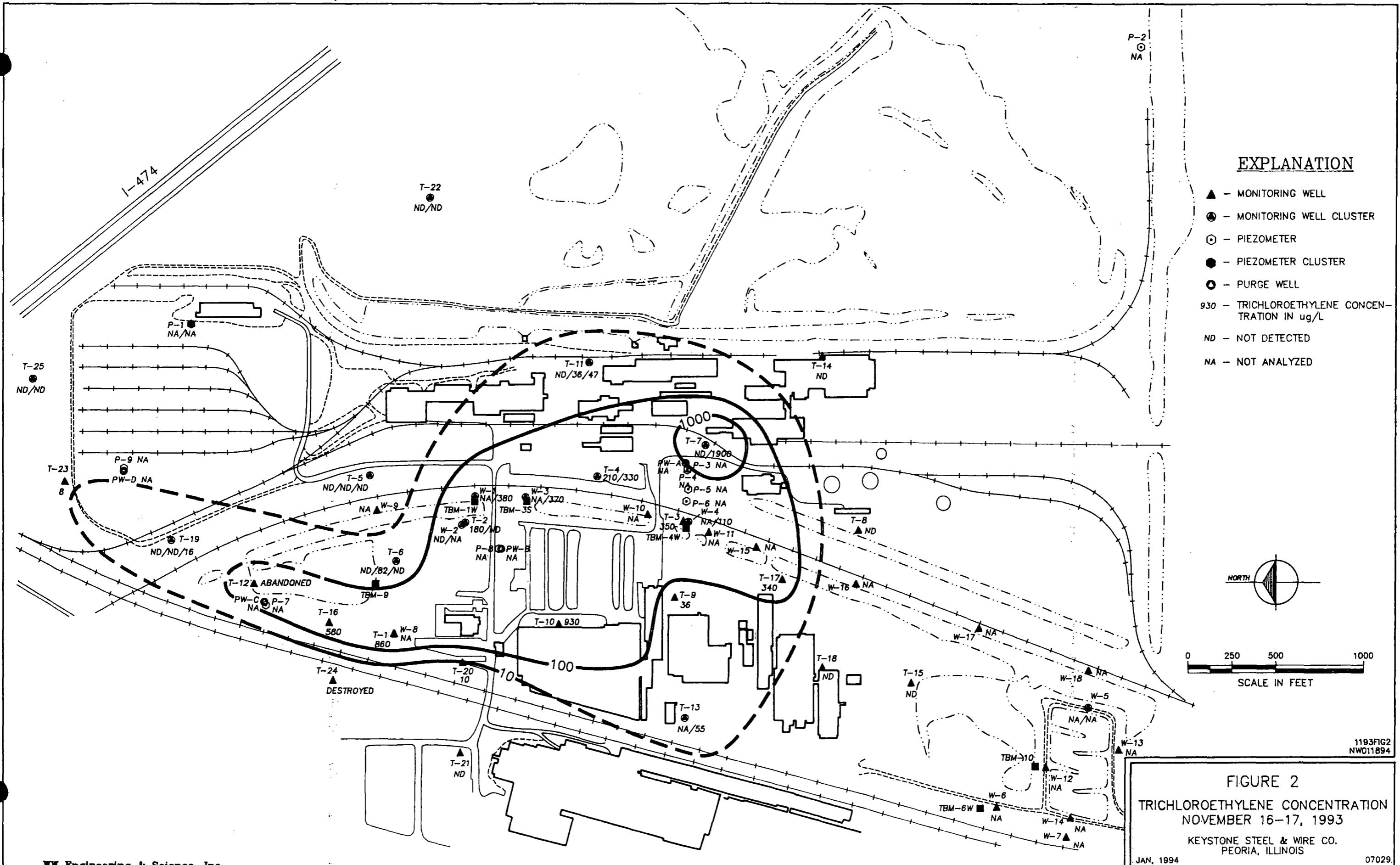
FIGURE 1
IEZOMETRIC SURFACE
NOVEMBER 15, 1993
KEYSTONE STEEL & WIRE CO.
PEORIA, ILLINOIS

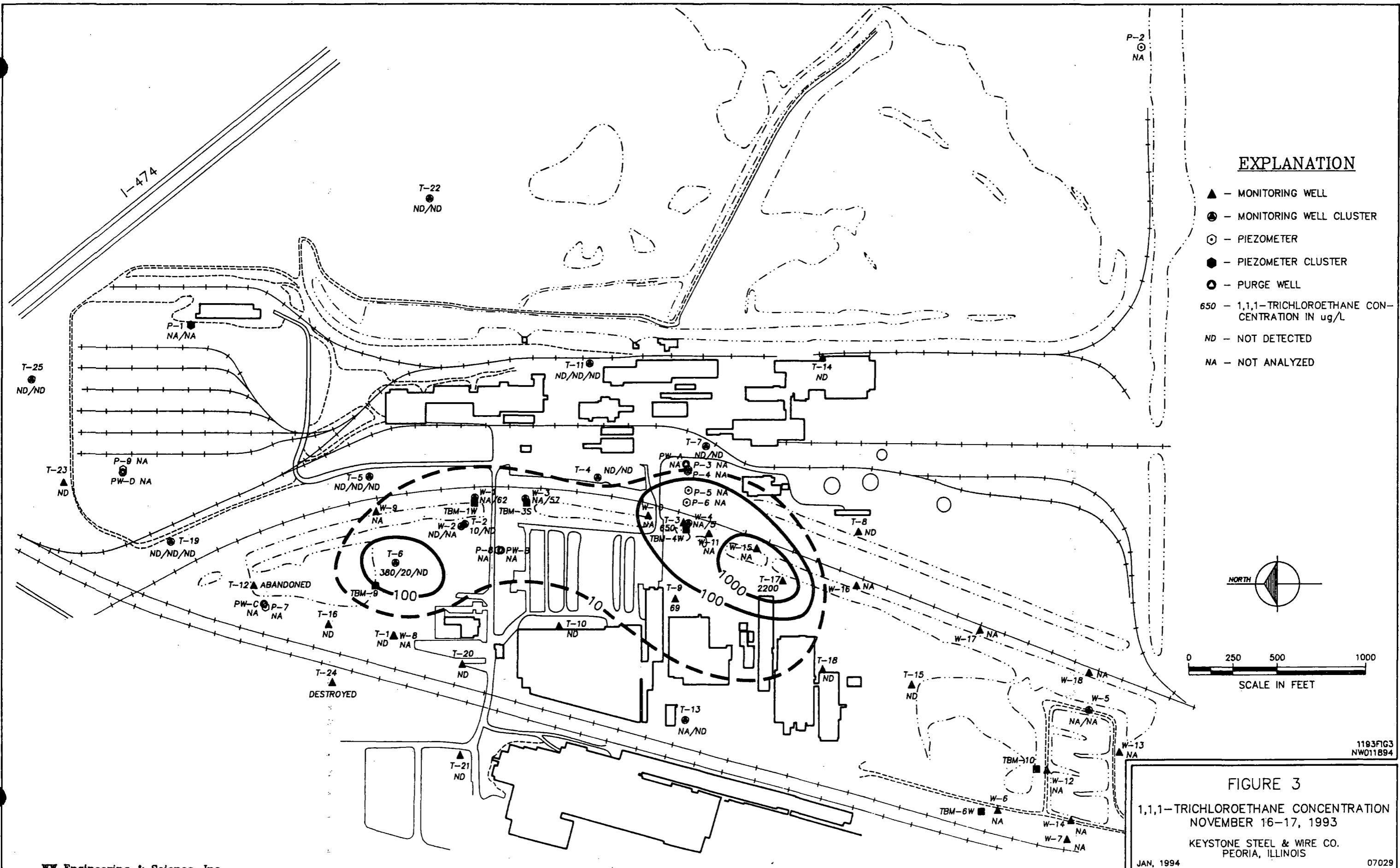
KEYSTONE STEEL & WIRE CO.
PEORIA, ILLINOIS

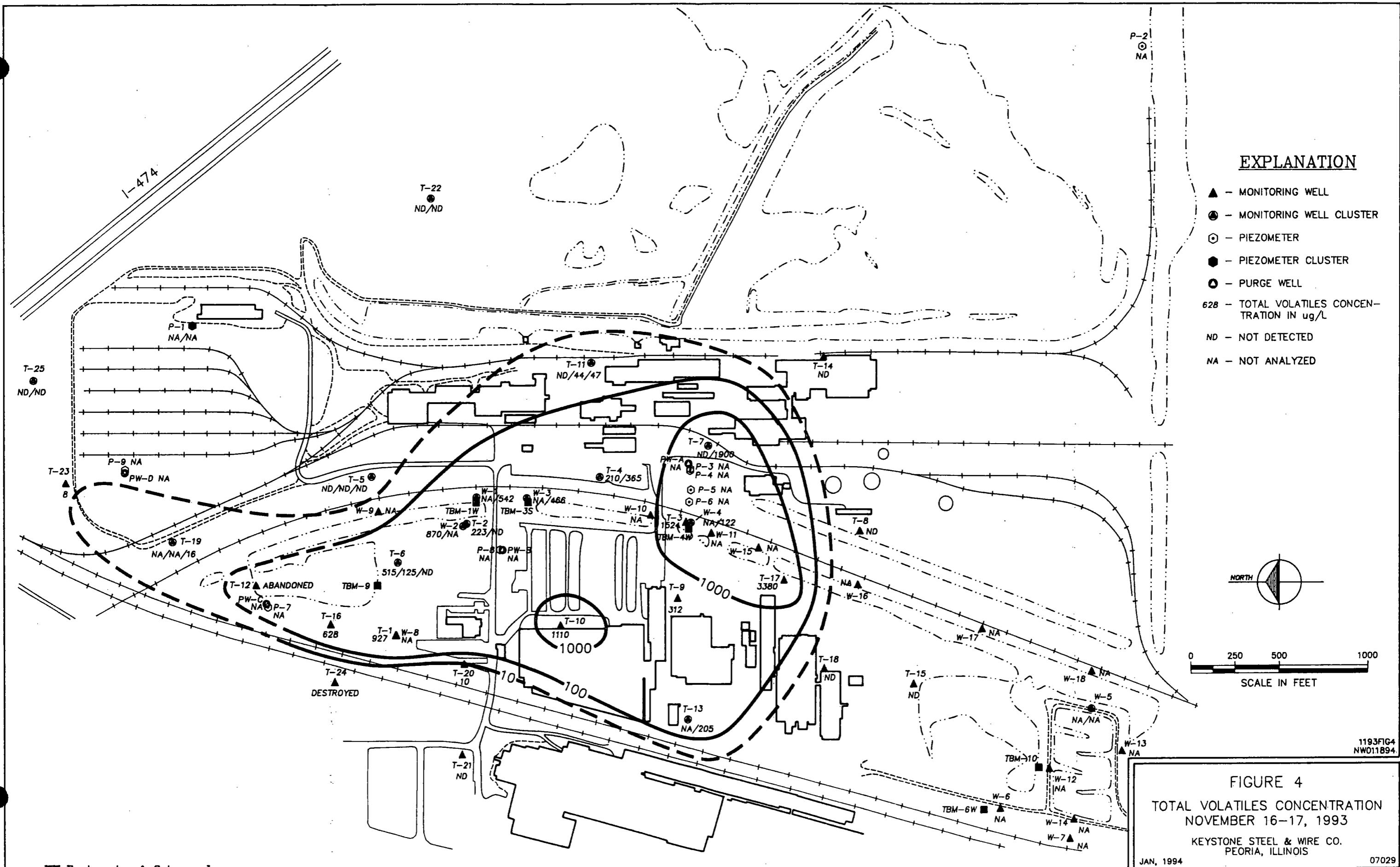
- WW Engineering & Science, Inc.

JAN. 19

07029







January 27, 1994

Mr. Bob Aten
WW Engineering & Science
5010 Stonemill Road
Bloomington, Indiana 47408

Subject: Keystone VOA Analysis

It has come to our attention that on the analysis for the sampling of Keystone Steel & Wire, an error in reporting was made. Carbon Tetrachloride results were incorrectly reported for some samples. Corrected report pages have been generated and mailed to you.

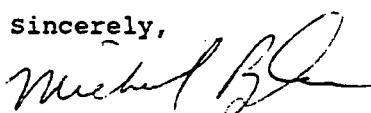
The analyses were performed within the QA criteria of EPA Method 8240. According to this method, there are two criteria for the identification of compounds - relative retention time (rrt) and mass spectral match.

One cause of the mis-identification is due to the closeness of the retention time of carbon tetrachloride (which is not present in the samples) and 1,1,1-trichloroethane (which is present in the samples). The difference is only 0.23 minutes. Both compounds met the rrt requirements, so the analyst had no cause to question the validity of the computer's identification.

The second cause of the mis-identification is the similarity in the mass spectral requirements as established by the EPA. The method requires carbon tetrachloride to be identified based on its primary mass ion (117) and secondary mass ion (119). As you can see in the attached mass spectra, these same ions also exist in 1,1,1-trichloroethane (and in almost the exact same ratio to each other). Since the computer "saw" the primary and secondary ions for carbon tetrachloride in carbon tetrachloride's rrt window, all identifying criteria were met and it reported the presence of carbon tetrachloride. The clue to the analyst that there was a problem would have been an incorrect ratio of 117 to 119 (this ratio is called the Q-value). The Q-value for this identification was 94% - also well within EPA's criteria.

Our corrective action has been to narrow the actual retention time window (not rrt) to prevent the computer from seeing these two very closely eluting peaks as being from the same compound.

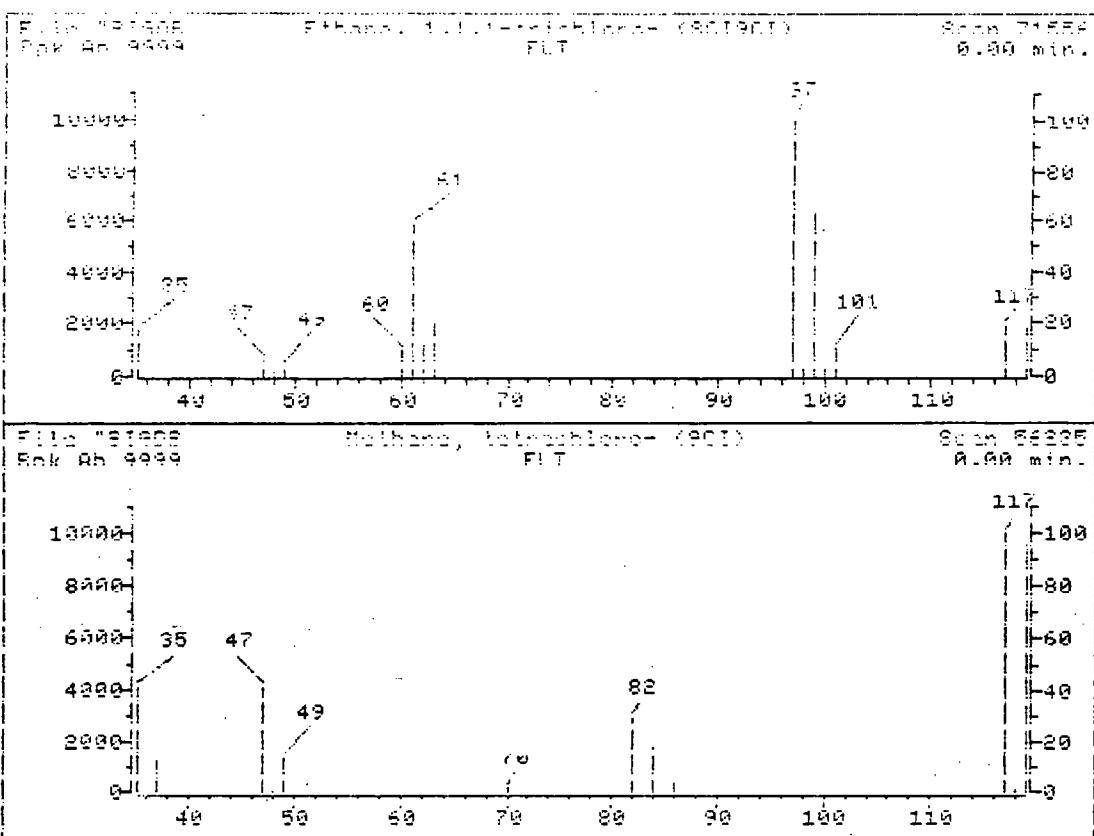
Sincerely,



Michael Ryder

MKR/ag

Attachment



January 13, 1994

Mr. Bob Aten
WW Engineering & Science
5010 Stonemill Rd.
Bloomington, Indiana 47408

Subject: Keystone VOA Analysis

It has come to our attention that on the analysis for the fourth quarter sampling of Keystone Steel & Wire an error in reporting was made. Carbon Tetrachloride results were incorrectly reported for some samples. Corrected report pages have been generated and mailed to you.

Upon review of previous data packages for Keystone, the same misidentification of Carbon Tetrachloride was found to be present in past projects. Attached is a table of corrected Carbon Tetrachloride results for all affected samples.

Sincerely,



Tom Morrison

Table of Corrected Data

Lab ID#	Client ID#	Date Received	Carbon Tetrachloride Result ($\mu\text{g/L}$)
8656-103	T-6A	11/24/1992	<5
8656-121	T-3	11/24/1992	<5
8656-128	W-3D REP	11/24/1992	<5
8656-131	W-3D	11/24/1992	<5
8656-148	T-9	11/24/1992	<5
8656-151	T-9 REP	11/24/1992	<5
9370-103	T-3	02/26/1993	<5
9370-106	T-6A	02/26/1993	<5
9370-109	T-9	02/26/1993	<5
9370-120	W-1D	02/26/1993	<5
9370-122	W-3D	02/26/1993	<5
10062-130	T-6A	05/27/1993	<5
10062-134	T-9	05/27/1993	<5
10062-135	T-9 REP	05/27/1993	<5
10062-137	W-1D	05/27/1993	<5
10062-138	W-3D	05/27/1993	<5
10062-141	T-17	05/27/1993	<5
10062-149	T-3	05/27/1993	<5
10775-103	W-1D	08/25/1993	<5
10775-106	T-9	08/25/1993	<5
10775-107	T-3	08/25/1993	<5
10775-108	T-9 REP	08/25/1993	<5
10775-111	T-17	08/25/1993	<5
10775-112	T-17 REP	08/25/1993	<5
10775-113	T-6A	08/25/1993	<5
11499-101	T-17	11/17/1993	<5
11499-106	T-6A	11/17/1993	<5
11499-121	T-3	11/17/1993	<5



December 28, 1993

Dr. Robert Aten
WW Engineering & Science
5010 Stone Mill Road
Bloomington, IN 47408

Dear Dr. Aten:

Enclosed please find one copy of the volatile compound report and data validation package for the quarterly Keystone Monitoring Program. All data were validated against Table 5 and SW846 protocols. All data were deemed acceptable with no qualifications necessary. If you have any questions, please call.

Sincerely,

WW ENGINEERING & SCIENCE
ENVIRONMENTAL LABORATORY DIVISION

Ray V. Buhl
Senior Project Chemist

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-110
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: W-1D

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit
DL - Detection Limit
* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-110
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: W-1D

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	62
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	74
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	380
Vinyl Acetate	<100
Vinyl Chloride	<20

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-110
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: W-1D

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	26
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-105
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: W-1D REP

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/20/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-105

Date Reported: 12/03/1993

Matrix: GR.WATER

CUSTOMER SAMPLE ID: W-1D REP

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	61
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	76
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	380
Vinyl Acetate	<100
Vinyl Chloride	<20

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-105

Date Reported: 12/03/1993

Matrix: GR.WATER

CUSTOMER SAMPLE ID: W-1D REP

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	25
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-104
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: W-2

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-104
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: W-2

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<25
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	700
1,1-Dichloroethene	170
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	<25
Vinyl Acetate	<250
Vinyl Chloride	<50

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-104

Date Reported: 12/03/1993

Matrix: GR.WATER

CUSTOMER SAMPLE ID: W-2

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<25
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
α -Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-117
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: W-3D

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-117

Date Reported: 12/03/1993

Matrix: GR.WATER

CUSTOMER SAMPLE ID: W-3D

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	57
1,1,2,2-Tetrachloroethane	<15
1,1,2-Trichloroethane	<15
1,1-Dichloroethane	<15
1,1-Dichloroethene	22
1,2-Dichloroethane	<15
1,2-Dichloropropane	<15
2-Butanone	<300
2-Chloroethyl vinyl ether	<30
2-Hexanone	<150
4-Methyl-2-pentanone	<150
Acetone	<300
Benzene	<15
Bromodichloromethane	<15
Bromoform	<15
Bromomethane	<30
Carbon Disulfide	<300
Carbon Tetrachloride	<15
Chlorobenzene	<15
Chlorethane	<30
Chloroform	<15
Chloromethane	<30
Dibromochloromethane	<15
Ethylbenzene	<15
Methylene Chloride	<15
Styrene	<15
Tetrachloroethene	<15
Toluene	<15
Trichloroethene	370
Vinyl Acetate	<150
Vinyl Chloride	<30

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-117

Date Reported: 12/03/1993

Matrix: GR.WATER

CUSTOMER SAMPLE ID: W-3D

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	17
cis-1,3-Dichloropropene	<15
m-Xylene/p-Xylene	<15
o-Xylene	<15
trans-1,2-Dichloroethene	<15
trans-1,3-Dichloropropene	<15

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-124
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: W-4D

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-124
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: W-4D

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	110
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-124
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: W-4D

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	7
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
α -Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-114
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-1

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-114
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-1

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<25
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	<25
1,1-Dichloroethene	<25
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	860
Vinyl Acetate	<250
Vinyl Chloride	<50

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-114

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-1

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	67
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-109
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-2A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-109
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-2A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	10
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	5
1,1-Dichloroethene	16
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	180
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-109
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-2A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	12
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-121
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-3

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-121
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-3

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	650
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	34
1,1-Dichloroethene	370
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	350
Vinyl Acetate	<250
Vinyl Chloride	<50

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-121
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-3

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	120
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-119
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-4A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-119
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-4A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	<10
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	210
Vinyl Acetate	<100
Vinyl Chloride	<20

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-119

Date Reported: 12/03/1993

Matrix: GR.WATER

CUSTOMER SAMPLE ID: T-4A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-118
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-4B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-118
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-4B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	35
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	330
Vinyl Acetate	<100
Vinyl Chloride	<20

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-118
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-4B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-106
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-6A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/20/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-106
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-6A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	380
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	46
1,1-Dichloroethene	89
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	<25
Vinyl Acetate	<250
Vinyl Chloride	<50

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-106
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-6A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<25
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-107
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-6B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-107
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-6B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	20
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	5
1,1-Dichloroethene	11
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	82
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-107
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-6B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	7
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-125
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-7B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-125

Date Reported: 12/03/1993

Matrix: GR.WATER

CUSTOMER SAMPLE ID: T-7B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<90
1,1,2,2-Tetrachloroethane	<90
1,1,2-Trichloroethane	<90
1,1-Dichloroethane	<90
1,1-Dichloroethene	<90
1,2-Dichloroethane	<90
1,2-Dichloropropane	<90
2-Butanone	<1800
2-Chloroethyl vinyl ether	<180
2-Hexanone	<900
4-Methyl-2-pentanone	<900
Acetone	<1800
Benzene	<90
Bromodichloromethane	<90
Bromoform	<90
Bromomethane	<180
Carbon Disulfide	<1800
Carbon Tetrachloride	<90
Chlorobenzene	<90
Chloroethane	<180
Chloroform	<90
Chloromethane	<180
Dibromochloromethane	<90
Ethylbenzene	<90
Methylene Chloride	<90
Styrene	<90
Tetrachloroethene	<90
Toluene	<90
Trichloroethene	1900
Vinyl Acetate	<900
Vinyl Chloride	<180

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-125
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-7B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<90
cis-1,3-Dichloropropene	<90
m-Xylene/p-Xylene	<90
o-Xylene	<90
trans-1,2-Dichloroethene	<90
trans-1,3-Dichloropropene	<90

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-110
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-9

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-110

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-9

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	69
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	25
1,1-Dichloroethene	130
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	46
Toluene	<5
Trichloroethene	36
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-110

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-9

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	6
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-111
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-10

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

-- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-111
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-10

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<25
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	<25
1,1-Dichloroethene	<25
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	930
Vinyl Acetate	<250
Vinyl Chloride	<50

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-111
Matrix: GR. WATER

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-10

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	180
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
α -Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-114
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-11B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-114
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-11B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	36
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-114
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-11B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	8
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-113
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-11C

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit
DL - Detection Limit
* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-113
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-11C

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	47
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-113
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-11C

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-115
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-13B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-115
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-13B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<9
1,1,2,2-Tetrachloroethane	<9
1,1,2-Trichloroethane	<9
1,1-Dichloroethane	<9
1,1-Dichloroethene	<9
1,2-Dichloroethane	<9
1,2-Dichloropropane	<9
2-Butanone	<180
2-Chloroethyl vinyl ether	<18
2-Hexanone	<90
4-Methyl-2-pentanone	<90
Acetone	<180
Benzene	<9
Bromodichloromethane	<9
Bromoform	<9
Bromomethane	<18
Carbon Disulfide	<180
Carbon Tetrachloride	<9
Chlorobenzene	<9
Chloroethane	<18
Chloroform	<9
Chloromethane	<18
Dibromochloromethane	<9
Ethylbenzene	<9
Methylene Chloride	<9
Styrene	<9
Tetrachloroethene	<9
Toluene	<9
Trichloroethene	55
Vinyl Acetate	<90
Vinyl Chloride	<18

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-115

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-13B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	150
cis-1,3-Dichloropropene	<9
m-Xylene/p-Xylene	<9
o-Xylene	<9
trans-1,2-Dichloroethene	<9
trans-1,3-Dichloropropene	<9

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-116
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-16

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-116
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-16

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<25
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	<25
1,1-Dichloroethene	<25
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	580
Vinyl Acetate	<250
Vinyl Chloride	<50

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-116

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-16

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	48
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science
5010 Stone Mill Rd.
Bloomington IN 47408

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-101
Sample Matrix: GR.WATER

Purchase Order: 07029.00

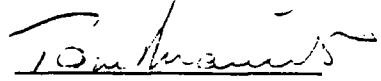
PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-17

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit
DL - Detection Limit
* - Analyst Initials

Authorized By:


Tom Mancini
Lab Project Manager

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-101
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-17

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	2200
1,1,2,2-Tetrachloroethane	<100
1,1,2-Trichloroethane	<100
1,1-Dichloroethane	<100
1,1-Dichloroethene	570
1,2-Dichloroethane	<100
1,2-Dichloropropane	<100
2-Butanone	<2000
2-Chloroethyl vinyl ether	<200
2-Hexanone	<1000
4-Methyl-2-pentanone	<1000
Acetone	<2000
Benzene	<100
Bromodichloromethane	<100
Bromoform	<100
Bromomethane	<200
Carbon Disulfide	<2000
Carbon Tetrachloride	<100
Chlorobenzene	<100
Chloroethane	<200
Chloroform	<100
Chloromethane	<200
Dibromochloromethane	<100
Ethylbenzene	<100
Methylene Chloride	<100
Styrene	<100
Tetrachloroethene	270
Toluene	<100
Trichloroethene	340
Vinyl Acetate	<1000
Vinyl Chloride	<200

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-101
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-17

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<100
cis-1,3-Dichloropropene	<100
m-Xylene/p-Xylene	<100
o-Xylene	<100
trans-1,2-Dichloroethene	<100
trans-1,3-Dichloropropene	<100

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-108
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-19C

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

ND - Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-108
Matrix: GR. WATER

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-19C

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	16
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-108

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-19C

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-112
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-20

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

ND - Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-112
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-20

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	10
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-112
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-20

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-111
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-20 REP

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-111
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-20 REP

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	10
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-111
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-20 REP

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-119
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-23

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit
DL - Detection Limit
* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-119

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-23

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	8
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-119
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-23

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Actn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-103
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-2B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/21/93	RP USEPA-8240

ND - Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-103
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-2B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-103
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-2B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-120
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-5A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-120
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-5A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-120
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-5A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-127
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-5B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-127
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-5B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-127
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-5B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-128
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-5C

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-128
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-5C

COMPOUND	RESULTS (µg/L)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-128
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-5C

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-108
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-6C

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/20/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-108
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-6C

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-108
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-6C

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-122
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-7A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-122
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-7A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-122
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-7A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-103
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-8

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-103
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-8

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-103

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-8

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-115
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-11A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-115
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-11A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-115
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-11A

COMPOUND	RESULTS (μ g/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

By: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-105
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-14

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-105

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-14

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-105
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-14

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

By: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-104
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-14 REP

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-104

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-14 REP

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-104
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-14 REP

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/15/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-102
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-18

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/21/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-102
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-18

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-102
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-18

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-107
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-19A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-107
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-19A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-107

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-19A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-109
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-19B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-109

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-19B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-109
Matrix: GR. WATER

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-19B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-129
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-21

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-129
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-21

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-129
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-21

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

tn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-118
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-22A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-118
Matrix: GR. WATER

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-22A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-118
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-22A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Ltn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-117
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-22B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-117
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-22B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-117
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-22B

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-112
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-25A

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-112
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-25A

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-112

Date Reported: 12/07/1993

Matrix: GR. WATER

CUSTOMER SAMPLE ID: T-25A

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-113
Sample Matrix: GR. WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-25B

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-113
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-25B

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-113
Matrix: GR. WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: T-25B

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-126
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: T-15

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-126
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-15

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-126
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: T-15

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-102
Sample Matrix: DI WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: BLANK 130

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/24/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-102
Matrix: DI WATER

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: BLANK 130

COMPOUND	RESULTS (µg/L)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-102
Matrix: DI WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: BLANK 130

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science
5010 Stone Mill Rd.
Bloomington IN 47408

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-101
Sample Matrix: DI WATER

Purchase Order: 07029.00

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: BLANK 207

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit
DL - Detection Limit
* - Analyst Initials

Authorized By:


Tom Haunton
Lab Project Manager

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-101

Date Reported: 12/07/1993

Matrix: DI WATER

CUSTOMER SAMPLE ID: BLANK 207

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-101
Matrix: DI WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: BLANK 207

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-116
Sample Matrix: GR.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: BLANK 322

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-116
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: BLANK 322

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-116
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: BLANK 322

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/16/93
Date Received: 11/17/93
Date Reported: 12/03/93

Lab Sample ID: 11499-123
Sample Matrix: DI.WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: TRIP BLANK

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/22/93	RP USEPA-8240

D - Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11499-123
Matrix: GR.WATER

Date Received: 11/17/1993

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: TRIP BLANK

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/17/1993

Lab Sample ID: 11499-123
Matrix: GR.WATER

Date Reported: 12/03/1993

CUSTOMER SAMPLE ID: TRIP BLANK

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science

Date Sampled: 11/17/93
Date Received: 11/18/93
Date Reported: 12/07/93

Lab Sample ID: 11514-106
Sample Matrix: DI WATER

PROJECT# 07029.00 KEYSTONE STEEL & WIRE

CUSTOMER SAMPLE ID: TRIP BLANK

Analysis	Results	DL	Analyzed	*	Method
VOA	ATTACHED	-	-	11/23/93	KM USEPA-8240

- Not Detected at Detection Limit

DL - Detection Limit

* - Analyst Initials

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Lab Sample ID: 11514-106
Matrix: DI WATER

Date Received: 11/18/1993

Date Reported: 12/07/1993

CUSTOMER SAMPLE ID: TRIP BLANK

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

Volatile Organic Analysis Report

Attn: Bob Aten
WW Engineering & Science

Date Received: 11/18/1993

Lab Sample ID: 11514-106

Date Reported: 12/07/1993

Matrix: DI WATER

CUSTOMER SAMPLE ID: TRIP BLANK

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

STATEMENT OF DATA QUALIFICATIONS

CLIENT: WW ENGINEERING & SCIENCE

LAB REFERENCE #: 11499

The following analyses have been qualified for the reasons cited.

Sample ID (s):	T-17,	W-1D	Parameter:	VOA
	W-2,	W-3D		
	W-1D REP,	T-4B		
	T-6A,	T-4A		
	T-3,	T-7B		

Explanation:

Detection limit elevated due to high hits of other target compounds.

NOTE: This document is included as part of the Laboratory Report for the above referenced submittal and must be retained as a permanent record thereof.

STATEMENT OF DATA QUALIFICATIONS

CLIENT: WW ENGINEERING & SCIENCE

LAB REFERENCE #: 11514

The following analyses have been qualified for the reasons cited.

Sample ID (s): T-10 **Parameter:** VOA
 T-1
 T-13B
 T-16

Explanation:

Detection limit elevated due to high hits of other target compounds.

NOTE: This document is included as part of the Laboratory Report for the above referenced submittal and must be retained as a permanent record thereof.

Alert # T1108.2

3111

CHAIN OF CUSTODY RECORD



WW Engineering & Science, Inc.
5010 Stone Mill Road, Bloomington, Indiana 47408
Phone (812)336-0972 Fax (812)336-3991

PROJECT SAMPLERS	PROJECT NO.						NO. CONTAINERS	CONTAINER TYPE PRESERVATIVE [HC]	ANALYSIS
	07029.00								
SAMPLE I.D.	DATE	TIME	MATRIX*	COMP	GRAB	SAMPLE LOCATION			
① ✓ T-17	11/16/93	8:40am	WTR	X			2	X	VOC
② ✓ T-18	11/15/93	3:00pm							
③ ✓ T-2A	11/16/93	9:40am							
④ ✓ W-2	11/16/93	8:40AM							
⑤ ✓ W-1D Rep	11/16/93	8:10AM							
⑥ ✓ T-4,A	11/16/93	8:40AM							
⑦ ✓ T-4,B	11/16/93	10:40AM							
⑧ ✓ T-4,C	11/16/93	10:30AM							
⑨ ✓ T-2A	11/16/93	9:08AM							
⑩ ✓ W-1D	11/16/93	8:10AM							
⑪ ✓ T-20 Rep	11/16/93	11:15AM							
⑫ ✓ T-20 ^{PRV}	11/16/93	11:15AM							
⑬ ✓ T-11,C	11/16/93	11:20AM							
⑭ ✓ T-11,B	11/16/93	11:12AM							
⑮ ✓ T-11,A	11/16/93	11:39AM							
⑯ ✓ Blank 322	11/16/93	12:30PM							
⑰ ✓ W-3A	11/16/93	1:40PM							
⑱ ✓ T-4,D	11/16/93	2:00PM							
⑲ ✓ T-4,B	11/16/93	1:30PM							
⑳ ✓ T-4,A	11/16/93	1:55PM		V					
Relinquished By	Date	Time	Received By	Date	Time	Remarks			
Relinquished By	Date	Time	Received For Lab By <i>Pam Waddell</i>	11/17/93	10:59 AM	Received in good condition on ice packed 4°C			

*MATRIX: WATER (WTR), WASTEWATER (WW), SOIL, SLUDGE (SLU), AIR, OIL, HAZARDOUS WASTE (HW)

CHAIN OF CUSTODY RECORD

3113



WW Engineering & Science, Inc.
5010 Stone Mill Road, Bloomington, Indiana 47408
Phone (812)336-0972 Fax (812)336-3991

PROJECT Keystone Steel & Wire

PROJECT NO.
07039.00

SAMPLERS

R.J.F. R.D.F. B.W.C. M.B.L. A.R.V.

Renewed By

Date

TB

Received By

Date

Tim

Remarks

Relinquished By

Date

TB

Received For Lab By

Date

Tim

***MATRIX: WATER (WTR), WASTEWATER (WW), SOIL, SLUDGE (SLU), AIR, OIL, HAZARDOUS WASTE (HW)**

CHAIN OF CUSTODY RECORD

3114

 <p style="margin: 0;">WW Engineering & Science, Inc. 5010 Stone Mill Road, Bloomington, Indiana 47408 Phone (812)336-0972 Fax (812)336-3991</p>							NO. CONTAINERS CONTAINER TYPE/ PRESERVATIVE 40ML GLASS / HCl		
PROJECT Keystone Steel & Wire			PROJECT NO. 07039.00						
SAMPLERS RJF, RWC, RDE, MBL, ARV							ANALYSIS VOC		
SAMPLE I.D.	DATE	TIME	MATRIX*	COMP	GRAB	SAMPLE LOCATION			
Blank 207 ..	11/17/93	8:55AM	WTR	X			2 X		
Blank 130 ..	11/17/93	8:55AM					1	1	
T-8 ..	11/17/93	8:10AM					1	1	
T-14 Rep ..	11/17/93	8:30AM					1	1	
T-14 ..	11/17/93	8:30AM					1	1	
Trip Blank ..	11/17/93						1	1	
T-19A ..	11/17/93	9:15AM					1	1	
T-19C ..	11/17/93	9:40AM					1	1	
T-19B ..	11/17/93	9:40AM					1	1	
T-9 ..	11/17/93	9:25AM					1	1	
T-10 ..	11/17/93	9:05AM					1	1	
T-25A ..	11/17/93	10:50AM					1	1	
T-25B ..	11/17/93	11:15AM					1	1	
T-1 ..	11/17/93	10:30AM					1	1	
T-13B ..	11/17/93	10:50AM					1	1	
T-11c ..	11/17/93	10:15AM					1	1	
T-22B ..	11/17/93	11:35PM					1	1	
T-22A ..	11/17/93	12:20PM					1	1	
T-23 ..	11/17/93	12:00PM		↓	↓		1	1	
Relinquished By <i>A. Rebecca Vehage</i>		Date 11/17/93	Time 2:30pm	Received By <i>Rebecca Vehage</i>		Date 11/17/93	Time 2:30pm	Remarks <i>Handwritten Remarks</i>	
Relinquished By <i>A. Rebecca Vehage</i>		Date 11/17/93	Time 2:30pm	Received For Lab By <i>Rebecca Vehage</i>		Date 11/17/93	Time 2:30pm		

*MATRIX: WATER (WTR), WASTEWATER (WW), SOIL, SLUDGE (SLU), AIR, OIL, HAZARDOUS WASTE (HW)

**QUARTERLY GROUND WATER REMEDIATION
PROGRAM TECHNICAL MEMORANDUM
FOR AUGUST 1993**

KEYSTONE STEEL & WIRE COMPANY
BARTONVILLE, ILLINOIS

October 1993



**QUARTERLY GROUND WATER REMEDIATION
PROGRAM TECHNICAL MEMORANDUM
FOR AUGUST 1993**

**KEYSTONE STEEL & WIRE COMPANY
BARTONVILLE, ILLINOIS**

October 1993

TECHNICAL MEMORANDUM

DATE: October 25, 1993

TO: Ken Lovett
Illinois Environmental Protection Agency
Permit Section
Division of Land Pollution Control
2200 Churchill Road
Springfield, IL 62794-9276

FROM: Robert E. Aten
WW Engineering & Science
5010 Stone Mill Road
Bloomington, IN 47408

RE: Keystone Steel & Wire Company
Quarterly Ground Water Remediation Program Technical Memorandum,
August 1993 Sampling Event

This memorandum includes all August, 1993 quarterly ground water analytical data (Table 1) for the Keystone TCE ground water remediation program, and the ground water and surface water elevation data for July, August, and September, 1993 (Table 2). A piezometric surface map for the August 23, 1993 ground water measurements is shown on Figure 1, and concentration maps for TCE, 1,1,1-trichloroethane and total volatiles are presented on Figures 2, 3 and 4, respectively. All sampling and analytical procedures were consistent with the sampling plan presented in the Keystone Ground Water Remediation Program report submitted June 15, 1992.

All analytical results were validated using SW 846 protocols and the data have been qualified accordingly on Table 1. A letter from the project chemist discussing data validation is included in the Appendix. Also included in the Appendix are the laboratory data sheets documenting dates of analyses and analytical methods, and the chain of custody forms

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OCT 28 1993

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documenting date and time of sampling. A complete copy of the data validation package is retained in our office and at the analytical laboratory. Part or all of the QA/QC data will be provided upon request.

The piezometric surface map (Figure 1) reveals that ground water flow directions are consistent with previous data and that the ground water gradient is somewhat less (nearly flat) than during previous sampling events in the area of the contaminant plume. Water level elevations are about the same in August, 1993 as they were in May, 1993. However, water levels are eight to ten feet higher in the area of the contaminant plume in August, 1993 than they were in August, 1992.

Although contaminant concentrations at some locations are higher in August than in May, 1993, the concentrations are consistent with the historical data.

The ground water remediation system is under construction and it is anticipated that the system will be operational in December, 1993. No significant changes have been made in the proposed construction plans.

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
AUGUST 23-25, 1993

INVESTIGATIVE WELLS

WELL NUMBER	W-1D	W-2	W-3D	W-4D	T-1	T-2A	T-3	T-4A	T-4B
Temperature, field (C)	15.0	18.0	16.0	18.0	15.0	15.0	15.0	16.0	18.0
pH, field	6.7	6.1	6.5	6.8	6.1	6.7	6.9	6.6	6.6
SpC (at 25 C) *									
VOLATILES (ug/L)									
Carbon Tetrachloride	12	<30	<13	<5	<42	<9	170	<9	<10
1,1-Dichloroethane	<10	640	13	<5	<42	<9	<50	<9	<10
1,1-Dichloroethylene	64	150	27	<5	<42	18	450	<9	45
1,2-Dichloroethylene (cis)	23	<30	18	<5	64	12	140	<9	<10
Tetrachloroethylene	<10	<30	<13	<5	<42	<9	<50	<9	<10
1,1,1-Trichloroethane	74	<30	76	<5	<42	13	1200	<9	<10
Trichloroethylene	370	<30	360	64	1000	220	480	210	380

INVESTIGATIVE WELLS

WELL NUMBER	T-6B				T-9				
	T-6A	T-6B	Rep	T-7B	T-9	Rep	T-10	T-11B	T-11C
Temperature, field (C)	17.0	16.0	16.0	20.5	19.0	19.0	18.5	17.0	16.0
pH, field	6.2	6.7	6.6	6.5	6.7	6.8	6.1	6.7	6.7
SpC (at 25 C) *									
VOLATILES (ug/L)									
Carbon Tetrachloride	95	<5	<5	<90	18	18	<42	<5	<5
1,1-Dichloroethane	53	9	10	<90	12	12	<42	5	<5
1,1-Dichloroethylene	110	16	16	<90	80	69	<42	<5	<5
1,2-Dichloroethylene (cis)	<25	9	8	<90	<5	5	250	7	<5
Tetrachloroethylene	<25	<5	<5	<90	72	62	<42	<5	<5
1,1,1-Trichloroethane	600	21	22	<90	120	120	<42	<5	<5
Trichloroethylene	<25	79	84	2200	62	57	1100	35	33

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

* Specific conductance data considered invalid due to instrument malfunction.

Carbon disulfide was detected in T-3 at 1400 ug/L.

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
AUGUST 23-25, 1993

INVESTIGATIVE WELLS

WELL NUMBER	T-17						
	T-13B	T-16	T-17	Rep	T-19C	T-20	T-23
Temperature, field (C)	16.0	15.0	18.5	18.5	15.0	16.0	15.0
pH, field	5.5	6.6	6.8	6.8	6.8	6.3	6.8
SpC (at 25 C) *							
VOLATILES (ug/L)							
Carbon Tetrachloride	<9	<13	220	200	<5	<5	<5
1,1-Dichloroethane	<9	<13	<90	<100	<5	<5	<5
1,1-Dichloroethylene	<9	<13	440	400	<5	<5	<5
1,2-Dichloroethylene (cis)	190	<13	88	<100	<5	<5	<5
Tetrachloroethylene	<9	<13	270	240	<5	<5	<5
1,1,1-Trichloroethane	<9	<13	1600	1400	<5	<5	<5
Trichloroethylene	72	340	220	220	17	9	8

UPGRADIENT WELL

WELL NUMBER	T-15	
Temperature, field (C)	15.5	
pH, field	6.9	
SpC (at 25 C) *		
VOLATILES (ug/L)		
Carbon Tetrachloride	<5	
1,1-Dichloroethane	<5	
1,1-Dichloroethylene	<5	
1,2-Dichloroethylene (cis)	<5	
Tetrachloroethylene	<5	
1,1,1-Trichloroethane	<5	
Trichloroethylene	<5	

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

* Specific conductance data considered invalid due to instrument malfunction.

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
AUGUST 23-25, 1993

WELL NUMBER	BLANKS			TRIP BLANKS		
	Blank #	Blank #	Blank #	Trip	Trip	
	208	218	221	Blank	Blank	
Temperature, field (C)	NA	NA	NA	NA	NA	
pH, field	NA	NA	NA	NA	NA	
SpC (at 25 C)	NA	NA	NA	NA	NA	
VOLATILES (ug/L)						
Carbon Tetrachloride	<5	<5	<5	<5	<5	
1,1-Dichloroethane	<5	<5	<5	<5	<5	
1,1-Dichloroethylene	<5	<5	<5	<5	<5	
1,2-Dichloroethylene (cis)	<5	<5	<5	<5	<5	
Tetrachloroethylene	<5	<5	<5	<5	<5	
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	
Trichloroethylene	<5	<5	<5	<5	<5	

NA - not analyzed

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

Methylene chloride were detected in Blank 218 at 7 ug/L and Blank 221 at 7 ug/L.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: July 30, 1993				
T-1	453.57	49.23	6.68	446.89
T-2A	450.11	44.26	3.86	446.25
T-2B	450.25	66.90	4.04	446.21
T-3	450.57	60.70	4.64	445.93
T-4A	449.42	27.24	3.69	445.73
T-4B	449.44	79.30	3.39	446.05
T-5A	448.04	33.16	1.42	446.62
T-5B	448.27	66.08	1.80	446.47
T-5C	448.21	82.84	1.45	446.76
T-6A	451.67	19.63	6.76	444.91
T-6B	451.72	34.94	4.96	446.76
T-6C	452.00	55.16	5.36	446.64
T-7A	448.55	18.18	5.06	443.49
T-7B	448.56	81.75	2.41	446.15
T-8	451.00	31.61	6.93	444.07
T-9	459.85	35.47	14.28	445.57
T-10	456.60	40.62	10.72	445.88
T-11A	451.12	40.98	5.50	445.62
T-11B	451.39	82.66	5.30	446.09
T-11C	451.23	99.21	5.10	446.13
T-12	444.93	37.64	Abandoned	
T-13A	464.25	27.64	16.26	447.99
T-13B	464.44	32.03	16.42	448.02
T-14	452.47	102.05	6.49	445.98
T-15	454.70	20.25	5.88	448.82
T-16	450.51	41.96	3.48	447.03
T-17	461.62	41.90	17.36	444.26
T-18	462.92	32.02	12.50	450.42
T-19A	448.74	11.84	3.24	445.50
T-19B	449.45	39.83	2.34	447.11
T-19C	448.46	70.43	1.40	447.06
T-20	455.97	47.44	9.01	446.96
T-21	468.82	17.70	12.30	456.52
T-22A	447.97	68.56	NA	
T-22B	447.37	119.29	NA	
T-23	451.70	87.59	4.23	447.47
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	4.22	448.43
T-25B	453.65	94.23	5.69	447.96
P-1A	450.86	34.80	3.57	447.29
P-1B	450.75	71.26	3.82	446.93
P-2	459.71	92.43	13.14	446.57
P-3	447.27	39.37	NC	
P-4	447.23	68.41	1.57	445.66
P-5	447.11	69.97	NC	
P-6	446.90	67.14	NC	
P-7				
P-8				
P-9				
PW-1	448.62	80.99	2.55	446.07
W-1	449.85	8.96	5.70	444.15
W-1D	448.82	50.28	2.78	446.04
W-2	451.79	12.24	7.18	444.61

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			July 30, 1993	
W-2D	451.33	50.04	5.10	446.23
W-3	447.14	9.17	2.25	444.89
W-3D	446.94	50.34	0.82	446.12
W-4	450.67	9.97	5.32	445.35
W-4D	449.44	50.29	3.94	445.50
W-5	464.02	22.26	16.62	447.40
W-5D	463.76	36.22	16.60	447.16
W-6	461.38	10.06	8.06	453.32
W-7	459.21	14.51	3.77	455.44
W-8	455.01	16.66	9.03	445.98
W-9	449.78	14.85	6.40	443.38
W-10	451.33	14.74	7.84	443.49
W-11	450.15	14.87	5.08	445.07
W-12	460.38	21.04	12.60	447.78
W-13	459.62	24.62	10.90	448.72
W-14	460.75	20.77	8.80	451.95
W-15	451.80	12.35	3.33	448.47
W-16	451.77	12.11	3.37	448.40
W-17	452.73	12.13	2.98	449.75
W-18	451.08	12.26	2.57	448.51
AD-1	449.02	16.06	3.30	445.72
AD-2	447.90	13.16	2.08	445.82
AD-3	447.60	15.90	2.02	445.58
AD-4	447.93	13.23	2.45	445.48
AD-5	447.57	15.87	2.02	445.55
CL-1	450.13	19.20	4.52	445.61
CL-2	450.10	20.11	5.22	444.88
CL-3	450.27	23.63	4.60	445.67
CL-4	450.56	23.29	4.72	445.84
CL-5	453.74	27.04	8.12	445.62

NA = Well not accessable
 NC = Not collected

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			August 23, 1993	
T-1	453.57	49.23	9.14	444.43
T-2A	450.11	44.26	5.52	444.59
T-2B	450.25	66.90	5.75	444.50
T-3	450.57	60.70	6.28	444.29
T-4A	449.42	27.24	4.96	444.46
T-4B	449.44	79.30	4.98	444.46
T-5A	448.04	33.16	3.45	444.59
T-5B	448.27	66.08	3.65	444.62
T-5C	448.21	82.84	4.15	444.06
T-6A	451.67	19.63	6.56	445.11
T-6B	451.72	34.94	7.19	444.53
T-6C	452.00	55.16	7.50	444.50
T-7A	448.55	18.18	5.48	443.07
T-7B	448.56	81.75	4.20	444.36
T-8	451.00	31.61	8.60	442.40
T-9	459.85	35.47	15.47	444.38
T-10	456.60	40.62	12.01	444.59
T-11A	451.12	40.98	7.13	443.99
T-11B	451.39	82.66	7.10	444.29
T-11C	451.23	99.21	7.00	444.23
T-12	444.93	37.64	Abandoned	
T-13A	464.25	27.64	16.64	447.61
T-13B	464.44	32.03	16.80	447.64
T-14	452.47	102.05	8.30	444.17
T-15	454.70	20.25	5.70	449.00
T-16	450.51	41.96	6.06	444.45
T-17	461.62	41.90	18.45	443.17
T-18	462.92	32.02	12.94	449.98
T-19A	448.74	11.84	3.84	444.90
T-19B	449.45	39.83	5.25	444.20
T-19C	448.46	70.43	4.30	444.16
T-20	455.97	47.44	11.45	444.52
T-21	468.82	17.70	12.76	456.06
T-22A	447.97	68.56	NA	
T-22B	447.37	119.29	NA	
T-23	451.70	87.59	7.95	443.75
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	8.35	444.30
T-25B	453.65	94.23	8.55	445.10
P-1A	450.86	34.80	6.14	444.72
P-1B	450.75	71.26	6.42	444.33
P-2	459.71	92.43	15.72	443.99
P-3	447.27	39.37	NC	
P-4	447.23	68.41	NC	
P-5	447.11	69.97	NC	
P-6	446.90	67.14	NC	
P-7				
P-8				
P-9				
PW-1	448.62	80.99	4.24	444.38
W-1	449.85	8.96	5.16	444.69
W-1D	448.82	50.28	4.14	444.68
W-2	451.79	12.24	6.80	444.99

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			August 23, 1993	
W-2D	451.33	50.04	6.81	444.52
W-3	447.14	9.17	1.80	445.34
W-3D	446.94	50.34	2.30	444.64
W-4	450.67	9.97	5.02	445.65
W-4D	449.44	50.29	5.42	444.02
W-5	464.02	22.26	16.43	447.59
W-5D	463.76	36.22	16.61	447.15
W-6	461.38	10.06	6.78	454.60
W-7	459.21	14.51	3.55	455.66
W-8	455.01	16.66	9.46	445.55
W-9	449.78	14.85	6.27	443.51
W-10	451.33	14.74	6.55	444.78
W-11	450.15	14.87	4.75	445.40
W-12	460.38	21.04	12.45	447.93
W-13	459.62	24.62	10.97	448.65
W-14	460.75	20.77	8.11	452.64
W-15	451.80	12.35	3.42	448.38
W-16	451.77	12.11	NC	
W-17	452.73	12.13	2.78	449.95
W-18	451.08	12.26	2.60	448.48
AD-1	449.02	16.06	3.25	445.77
AD-2	447.90	13.16	1.98	445.92
AD-3	447.60	15.90	1.95	445.65
AD-4	447.93	13.23	2.37	445.56
AD-5	447.57	15.87	2.00	445.57
CL-1	450.13	19.20	NC	
CL-2	450.10	20.11	NC	
CL-3	450.27	23.63	NC	
CL-4	450.56	23.29	NC	
CL-5	453.74	27.04	7.60	446.14

NA = Well not accessable

NC = Not collected

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			September 29, 1993	
T-1	453.57	49.23	9.00	444.57
T-2A	450.11	44.26	5.30	444.81
T-2B	450.25	66.90	5.46	444.79
T-3	450.57	60.70	5.63	444.94
T-4A	449.42	27.24	4.86	444.56
T-4B	449.44	79.30	4.42	445.02
T-5A	448.04	33.16	3.16	444.88
T-5B	448.27	66.08	3.36	444.91
T-5C	448.21	82.84	3.76	444.45
T-6A	451.67	19.63	7.24	444.43
T-6B	451.72	34.94	6.99	444.73
T-6C	452.00	55.16	7.28	444.72
T-7A	448.55	18.18	5.91	442.64
T-7B	448.56	81.75	3.35	445.21
T-8	451.00	31.61	8.42	442.58
T-9	459.85	35.47		
T-10	456.60	40.62	11.96	444.64
T-11A	451.12	40.98	6.84	444.28
T-11B	451.39	82.66	6.24	445.15
T-11C	451.23	99.21	5.96	445.27
T-12	444.93	37.64		
T-13A	464.25	27.64	17.60	446.65
T-13B	464.44	32.03	17.62	446.82
T-14	452.47	102.05	7.40	445.07
T-15	454.70	20.25	6.60	448.10
T-16	450.51	41.96	5.96	444.55
T-17	461.62	41.90	18.49	443.13
T-18	462.92	32.02	14.45	448.47
T-19A	448.74	11.84	4.26	444.48
T-19B	449.45	39.83	5.06	444.39
T-19C	448.46	70.43	4.14	444.32
T-20	455.97	47.44	11.34	444.63
T-21	468.82	17.70	13.00	455.82
T-22A	447.97	68.56	NA	
T-22B	447.37	119.29	NA	
T-23	451.70	87.59	7.54	444.16
T-24	455.70	38.99		
T-25A	452.65	39.58	8.04	444.61
T-25B	453.65	94.23	8.32	445.33
P-1A	450.86	34.80	5.94	444.92
P-1B	450.75	71.26	5.74	445.01
P-2	459.71	92.43	7.32	452.39
P-3	447.27	39.37	NC	
P-4	447.23	68.41	NC	
P-5	447.11	69.97	NC	
P-6	446.90	67.14	NC	
P-7			5.90	
P-8			5.80	
P-9			6.10	
PW-1	448.62	80.99	NC	
W-1	449.85	8.96	6.16	443.69
W-1D	448.82	50.28	3.96	444.86
W-2	451.79	12.24	7.70	444.09

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: Spetember 29, 1993				
W-2D	451.33	50.04	6.58	444.75
W-3	447.14	9.17	1.80	445.34
W-3D	446.94	50.34	2.08	444.86
W-4	450.67	9.97	5.00	445.67
W-4D	449.44	50.29	5.24	444.20
W-5	464.02	22.26	17.93	446.09
W-5D	463.76	36.22	18.35	445.41
W-6	461.38	10.06	4.69	456.69
W-7	459.21	14.51	3.86	455.35
W-8	455.01	16.66	8.62	446.39
W-9	449.78	14.85	6.16	443.62
W-10	451.33	14.74	7.88	443.45
W-11	450.15	14.87	5.04	445.11
W-12	460.38	21.04	13.13	447.25
W-13	459.62	24.62	11.92	447.70
W-14	460.75	20.77	8.16	452.59
W-15	451.80	12.35	5.14	446.66
W-16	451.77	12.11	5.40	446.37
W-17	452.73	12.13	5.03	447.70
W-18	451.08	12.26	4.74	446.34
AD-1	449.02	16.06	2.64	446.38
AD-2	447.90	13.16	1.68	446.22
AD-3	447.60	15.90	1.12	446.48
AD-4	447.93	13.23	2.43	445.50
AD-5	447.57	15.87	1.09	446.48
CL-1	450.13	19.20	3.48	446.65
CL-2	450.10	20.11	4.64	445.46
CL-3	450.27	23.63	3.61	446.66
CL-4	450.56	23.29	3.73	446.83
CL-5	453.74	27.04	6.96	446.78

NA = Well not accessable
 NC = Not collected

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE: July 30, 1993			
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	3.94	443.95
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	>3.88	<445.14
TBM-4E	452.28		
TBM-4W	449.19	>4.55	<444.64
TBM-4S	445.68	2.10	443.58
TBM-6E	459.83		
TBM-6W	459.60	3.70	455.90
TBM-8	447.25		
TBM-9	446.88	M	
TBM-10	449.98	M	
TBM-10E	450.61	2.90	447.71
TBM-11	447.22	1.45	445.77
TBM-12	443.44	2.60	440.84

Illinois River
Peoria Lock & Dam
upper pool 448.67
lower pool 448.57

1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE: August 23, 1993			
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	M	
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	>3.88	<445.14
TBM-4E	452.28		
TBM-4W	449.19	>4.55	<444.64
TBM-4S	445.68	0.90	444.78
TBM-6E	459.83		
TBM-6W	459.60		
TBM-8	447.25		
TBM-9	446.88	M	
TBM-10	449.98	M	
TBM-10E	450.61	M	
TBM-11	447.22	0.60	446.62
TBM-12	443.44	M	

Illinois River	
Peoria Lock & Dam	
upper pool	442.20
lower pool	442.10

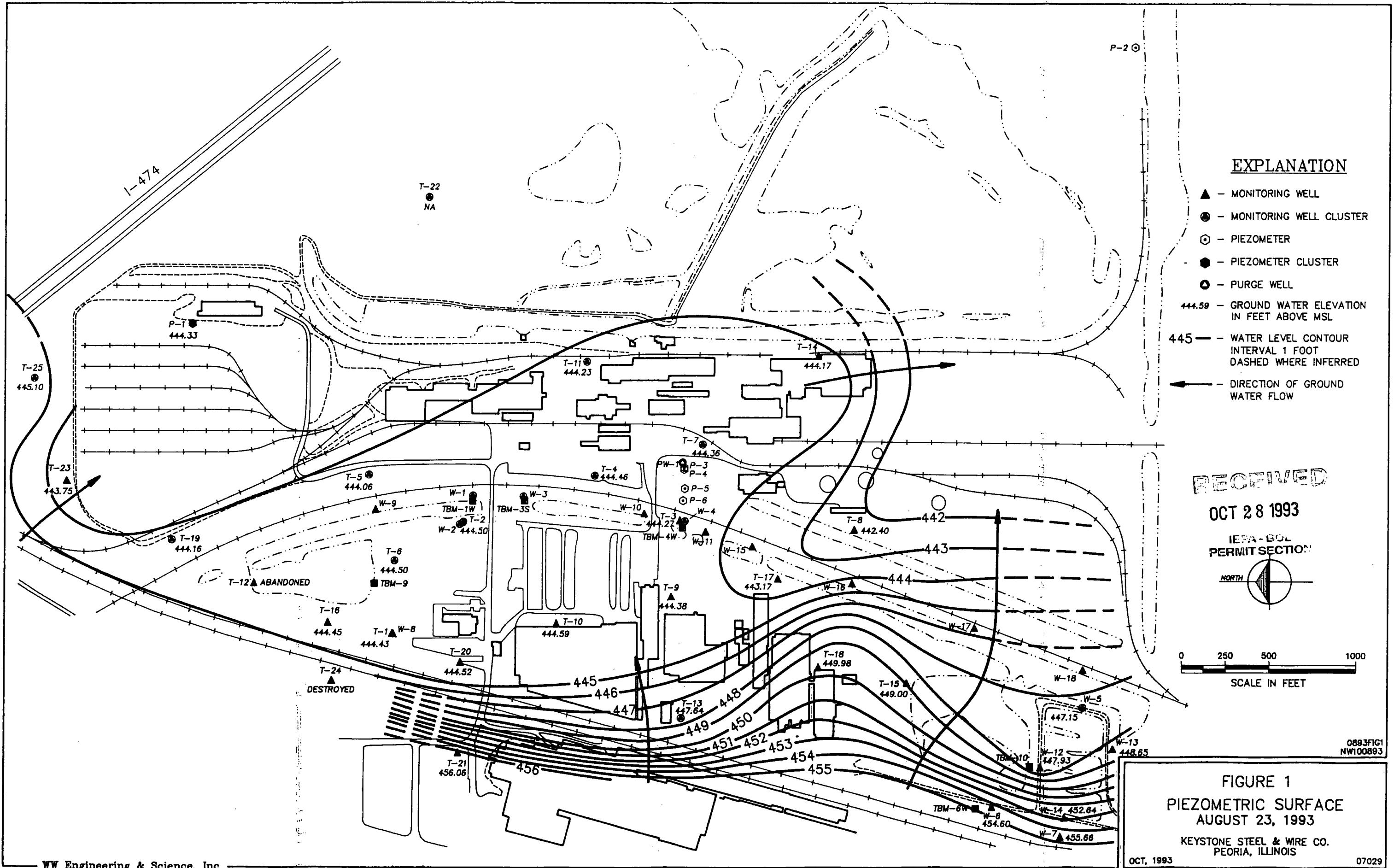
1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

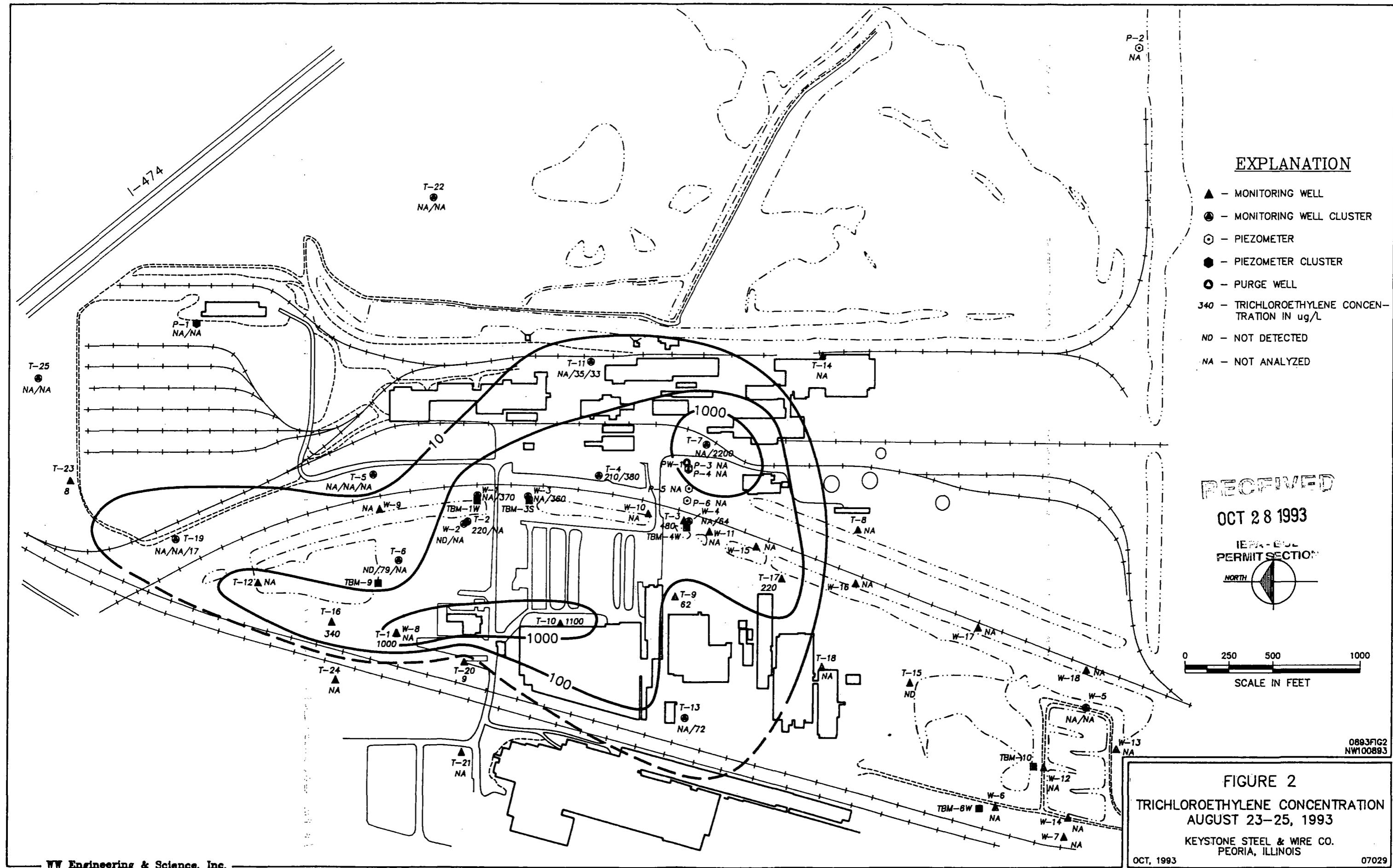
TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE:	September 29, 1993		
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	M	
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	>3.88	<445.14
TBM-4E	452.28		
TBM-4W	449.19	>4.55	<444.64
TBM-4S	445.68	2.10	
TBM-6E	459.83		
TBM-6W	459.60	4.68	454.92
TBM-8	447.25		
TBM-9	446.88	M	
TBM-10	449.98	3.23	446.75
TBM-10E	450.61	M	
TBM-11	447.22	0.40	446.82
TBM-12	443.44	M	

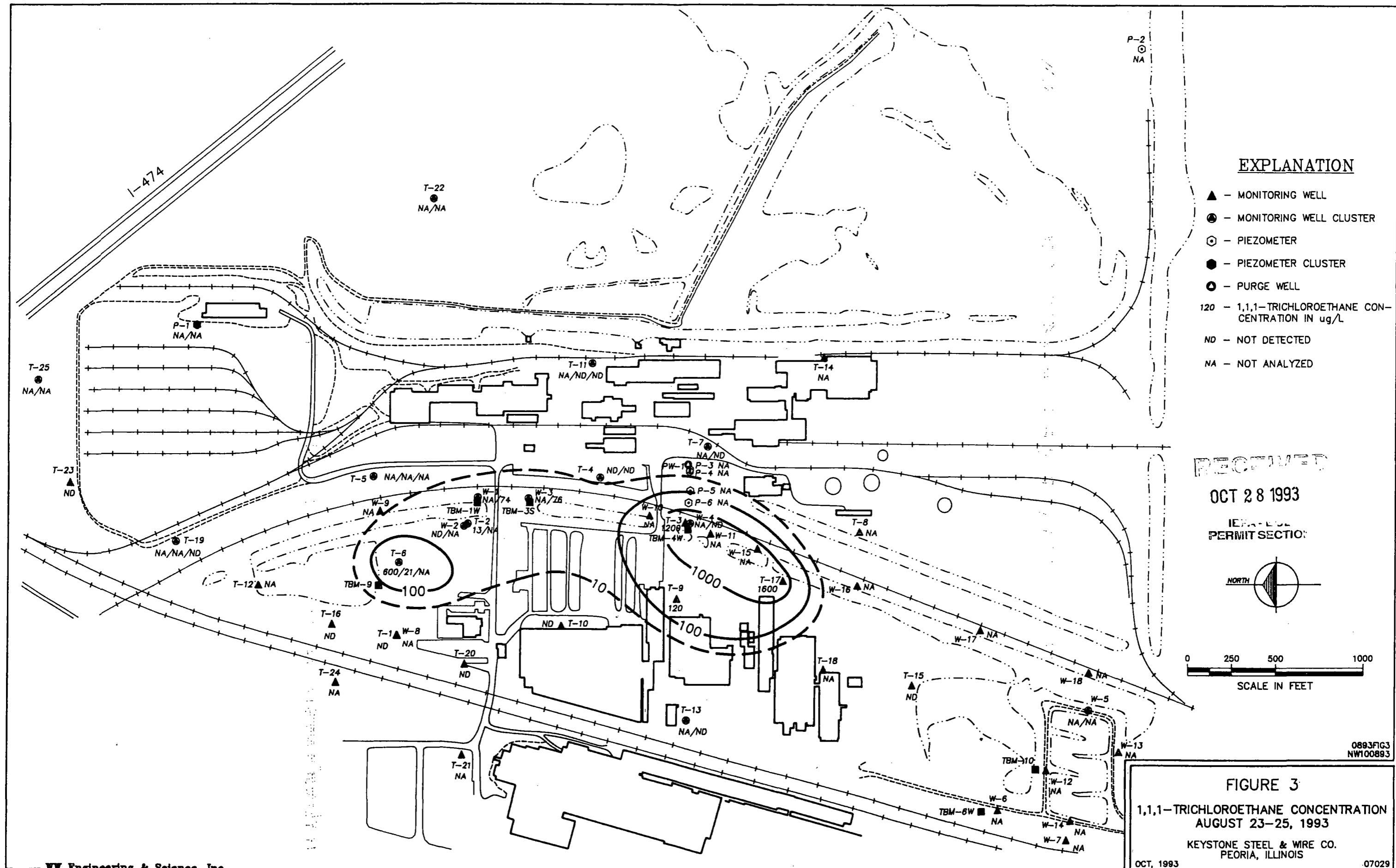
Illinois River
Peoria Lock & Dam
upper pool
lower pool

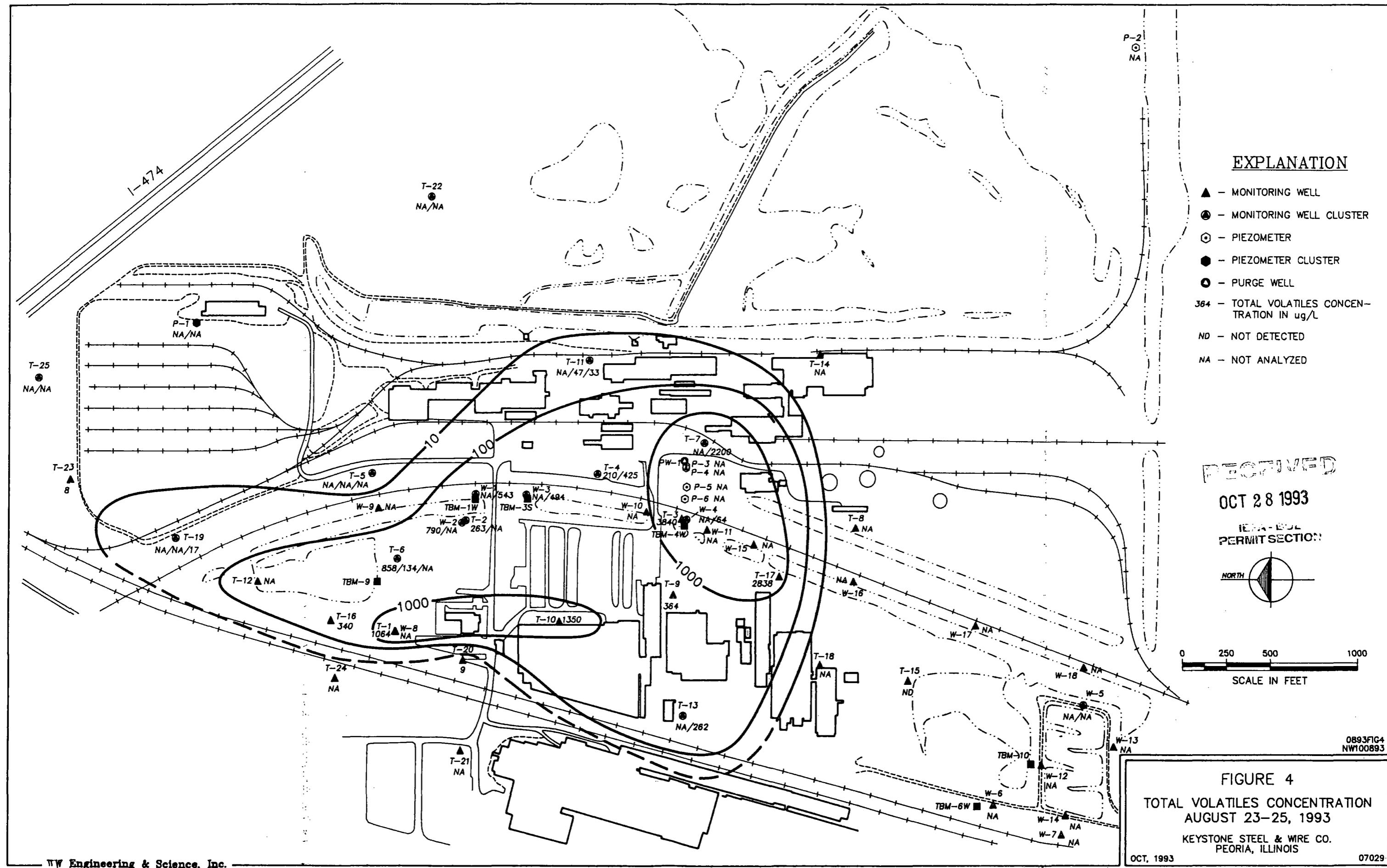
1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.



— WW Engineering & Science, Inc.









WW Engineering & Science
A Summit Company

October 19, 1993

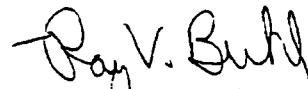
Dr. Robert Aten
WW Engineering & Science
5010 Stone Mill Road
Bloomington, IN 47408

Dear Dr. Aten:

Enclosed please find one copy of the volatile compound data validation package for the quarterly Keystone monitoring program. All data were validated against Table 5 and SW-846 protocols. All data were deemed acceptable with no qualifications necessary. If you have any questions, please call.

Sincerely,

WW ENGINEERING & SCIENCE
ENVIRONMENTAL LABORATORY DIVISION



Ray V. Buhl
Senior Project Chemist

Buhl3/Bob

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
W-1D

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-103

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	74
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	64
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	12
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	370
Vinyl Acetate	<100
Vinyl Chloride	<20

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
W-1D

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-103

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	23
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10775

Date Received: 08/25/1993

**Customer Sample Ref:
W-2**

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-104

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<30
1,1,2,2-Tetrachloroethane	<30
1,1,2-Trichloroethane	<30
1,1-Dichloroethane	640
1,1-Dichloroethene	150
1,2-Dichloroethane	<30
1,2-Dichloropropane	<30
2-Butanone	<600
2-Chloroethyl vinyl ether	<60
2-Hexanone	<300
4-Methyl-2-pentanone	<300
Acetone	<600
Benzene	<30
Bromodichloromethane	<30
Bromoform	<30
Bromomethane	<60
Carbon Disulfide	<600
Carbon Tetrachloride	<30
Chlorobenzene	<30
Chloroethane	<60
Chloroform	<30
Chloromethane	<60
Dibromochloromethane	<30
Ethylbenzene	<30
Methylene Chloride	<30
Styrene	<30
Tetrachloroethene	<30
Toluene	<30
Trichloroethene	<30
Vinyl Acetate	<300
Vinyl Chloride	<60

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10775

Date Received: 08/25/1993

Customer Sample Ref:
W-2

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-104

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<30
cis-1,3-Dichloropropene	<30
m-Xylene/p-Xylene	<30
o-Xylene	<30
trans-1,2-Dichloroethene	<30
trans-1,3-Dichloropropene	<30

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
W-3D

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-101

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	76
1,1,2,2-Tetrachloroethane	<13
1,1,2-Trichloroethane	<13
1,1-Dichloroethane	13
1,1-Dichloroethene	27
1,2-Dichloroethane	<13
1,2-Dichloropropane	<13
2-Butanone	<260
2-Chloroethyl vinyl ether	<26
2-Hexanone	<130
4-Methyl-2-pentanone	<130
Acetone	<260
Benzene	<13
Bromodichloromethane	<13
Bromoform	<13
Bromomethane	<26
Carbon Disulfide	<260
Carbon Tetrachloride	<13
Chlorobenzene	<13
Chloroethane	<26
Chloroform	<13
Chloromethane	<26
Dibromochloromethane	<13
Ethylbenzene	<13
Methylene Chloride	<13
Styrene	<13
Tetrachloroethene	<13
Toluene	<13
Trichloroethene	360
Vinyl Acetate	<130
Vinyl Chloride	<26

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10775

Date Received: 08/25/1993

**Customer Sample Ref:
W-3D**

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-101

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	18
cis-1,3-Dichloropropene	<13
m-Xylene/p-Xylene	<13
o-Xylene	<13
trans-1,2-Dichloroethene	<13
trans-1,3-Dichloropropene	<13

VQA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
W-4D

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-102

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	64
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
W-4D

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-102

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-1

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-120

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
1,1,1-Trichloroethane	<42
1,1,2,2-Tetrachloroethane	<42
1,1,2-Trichloroethane	<42
1,1-Dichloroethane	<42
1,1-Dichloroethene	<42
1,2-Dichloroethane	<42
1,2-Dichloropropane	<42
2-Butanone	<840
2-Chloroethyl vinyl ether	<84
2-Hexanone	<420
4-Methyl-2-pentanone	<420
Acetone	<840
Benzene	<42
Bromodichloromethane	<42
Bromoform	<42
Bromomethane	<84
Carbon Disulfide	<840
Carbon Tetrachloride	<42
Chlorobenzene	<42
Chloroethane	<84
Chloroform	<42
Chloromethane	<84
Dibromochloromethane	<42
Ethylbenzene	<42
Methylene Chloride	<42
Styrene	<42
Tetrachloroethene	<42
Toluene	<42
Trichloroethene	1000
Vinyl Acetate	<420
Vinyl Chloride	<84

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10775

Date Received: 08/25/1993

**Customer Sample Ref:
T-1**

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-120

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	64
cis-1,3-Dichloropropene	<42
m-Xylene/p-Xylene	<42
o-Xylene	<42
trans-1,2-Dichloroethene	<42
trans-1,3-Dichloropropene	<42

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-2A

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-105

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	13
1,1,2,2-Tetrachloroethane	<9
1,1,2-Trichloroethane	<9
1,1-Dichloroethane	<9
1,1-Dichloroethene	18
1,2-Dichloroethane	<9
1,2-Dichloropropane	<9
2-Butanone	<180
2-Chloroethyl vinyl ether	<18
2-Hexanone	<90
4-Methyl-2-pentanone	<90
Acetone	<180
Benzene	<9
Bromodichloromethane	<9
Bromoform	<9
Bromomethane	<18
Carbon Disulfide	<180
Carbon Tetrachloride	<9
Chlorobenzene	<9
Chloroethane	<18
Chloroform	<9
Chloromethane	<18
Dibromochloromethane	<9
Ethylbenzene	<9
Methylene Chloride	<9
Styrene	<9
Tetrachloroethene	<9
Toluene	<9
Trichloroethene	220
Vinyl Acetate	<90
Vinyl Chloride	<18

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-2A

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-105

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	12
cis-1,3-Dichloropropene	<9
m-Xylene/p-Xylene	<9
α -Xylene	<9
trans-1,2-Dichloroethene	<9
trans-1,3-Dichloropropene	<9

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-3

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-107

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	1200
1,1,2,2-Tetrachloroethane	<50
1,1,2-Trichloroethane	<50
1,1-Dichloroethane	<50
1,1-Dichloroethene	450
1,2-Dichloroethane	<50
1,2-Dichloropropane	<50
2-Butanone	<1000
2-Chloroethyl vinyl ether	<100
2-Hexanone	<500
4-Methyl-2-pentanone	<500
Acetone	<1000
Benzene	<50
Bromodichloromethane	<50
Bromoform	<50
Bromomethane	<100
Carbon Disulfide	1400
Carbon Tetrachloride	170
Chlorobenzene	<50
Chloroethane	<100
Chloroform	<50
Chloromethane	<100
Dibromochloromethane	<50
Ethylbenzene	<50
Methylene Chloride	<50
Styrene	<50
Tetrachloroethene	<50
Toluene	<50
Trichloroethene	480
Vinyl Acetate	<500
Vinyl Chloride	<100

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-3

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-107

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	140
cis-1,3-Dichloropropene	<50
m-Xylene/p-Xylene	<50
o-Xylene	<50
trans-1,2-Dichloroethene	<50
trans-1,3-Dichloropropene	<50

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-4A

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-115

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<9
1,1,2,2-Tetrachloroethane	<9
1,1,2-Trichloroethane	<9
1,1-Dichloroethane	<9
1,1-Dichloroethene	<9
1,2-Dichloroethane	<9
1,2-Dichloropropane	<9
2-Butanone	<180
2-Chloroethyl vinyl ether	<18
2-Hexanone	<90
4-Methyl-2-pentanone	<90
Acetone	<180
Benzene	<9
Bromodichloromethane	<9
Bromoform	<9
Bromomethane	<18
Carbon Disulfide	<180
Carbon Tetrachloride	<9
Chlorobenzene	<9
Chloroethane	<18
Chloroform	<9
Chloromethane	<18
Dibromochloromethane	<9
Ethylbenzene	<9
Methylene Chloride	<9
Styrene	<9
Tetrachloroethene	<9
Toluene	<9
Trichloroethene	210
Vinyl Acetate	<90
Vinyl Chloride	<18

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-4A

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-115

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<9
cis-1,3-Dichloropropene	<9
m-Xylene/p-Xylene	<9
o-Xylene	<9
trans-1,2-Dichloroethene	<9
trans-1,3-Dichloropropene	<9

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-4B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-116

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	45
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	380
Vinyl Acetate	<100
Vinyl Chloride	<20

VOA Report
(Volatile Organic Analysis).

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-4B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-116

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
α -Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-6A

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-113

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	600
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	53
1,1-Dichloroethene	110
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	95
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	<25
Vinyl Acetate	<250
Vinyl Chloride	<50

VOA Report

(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-6A

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-113

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<25
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-6B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-110

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	21
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	9
1,1-Dichloroethene	16
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	79
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/27/1993

Customer Sample Ref:
T-6B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-110

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	9
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-6B REP

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-114

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	22
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	10
1,1-Dichloroethene	16
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	84
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-6B REP

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-114

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	8
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-7B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-125

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<90
1,1,2,2-Tetrachloroethane	<90
1,1,2-Trichloroethane	<90
1,1-Dichloroethane	<90
1,1-Dichloroethene	<90
1,2-Dichloroethane	<90
1,2-Dichloropropane	<90
2-Butanone	<1800
2-Chloroethyl vinyl ether	<180
2-Hexanone	<900
4-Methyl-2-pentanone	<900
Acetone	<1800
Benzene	<90
Bromodichloromethane	<90
Bromoform	<90
Bromomethane	<180
Carbon Disulfide	<1800
Carbon Tetrachloride	<90
Chlorobenzene	<90
Chloroethane	<180
Chloroform	<90
Chloromethane	<180
Dibromochloromethane	<90
Ethylbenzene	<90
Methylene Chloride	<90
Styrene	<90
Tetrachloroethene	<90
Toluene	<90
Trichloroethene	2200
Vinyl Acetate	<900
Vinyl Chloride	<180

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-7B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-125

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
cis-1,2-Dichloroethene	<90
cis-1,3-Dichloropropene	<90
m-Xylene/p-Xylene	<90
o-Xylene	<90
trans-1,2-Dichloroethene	<90
trans-1,3-Dichloropropene	<90

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-9

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-106

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	120
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	12
1,1-Dichloroethene	80
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	18
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromo-chloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	72
Toluene	<5
Trichloroethene	62
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-9

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-106

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-9 REP

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-108

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	120
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	12
1,1-Dichloroethene	69
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	18
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	62
Toluene	<5
Trichloroethene	57
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-9 REP

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-108

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten

WW Engineering & Science

Customer Sample ID: T-10

Sample Matrix: GR. WATER
Sample Date: 08/25/1993
Sample Received: 08/26/1993
Report Date: 09/09/1993

PROJECT# 07029.00 KEYSTONE QUARTERLY

Lab # Analysis	Results	DL *	**	Date Analyzed	Method
10778-106 VOA	ATTACHED $\mu\text{g/L}$	5.0 $\mu\text{g/L}$	RP	08/30/1993	USEPA-8240

* DL - Detection Limit

** Analyst Initials

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-10

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-106

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<42
1,1,2,2-Tetrachloroethane	<42
1,1,2-Trichloroethane	<42
1,1-Dichloroethane	<42
1,1-Dichloroethene	<42
1,2-Dichloroethane	<42
1,2-Dichloropropane	<42
2-Butanone	<840
2-Chloroethyl vinyl ether	<84
2-Hexanone	<420
4-Methyl-2-pentanone	<420
Acetone	<840
Benzene	<42
Bromodichloromethane	<42
Bromoform	<42
Bromomethane	<84
Carbon Disulfide	<840
Carbon Tetrachloride	<42
Chlorobenzene	<42
Chloroethane	<84
Chloroform	<42
Chloromethane	<84
Dibromochloromethane	<42
Ethylbenzene	<42
Methylene Chloride	<42
Styrene	<42
Tetrachloroethene	<42
Toluene	<42
Trichloroethene	1100
Vinyl Acetate	<420
Vinyl Chloride	<84

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-10

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-106

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	250
cis-1,3-Dichloropropene	<42
m-Xylene/p-Xylene	<42
o-Xylene	<42
trans-1,2-Dichloroethene	<42
trans-1,3-Dichloropropene	<42

LABORATORY REPORT

Attn: Bob Aten
WW Engineering & Science
5010 Stone Mill Rd.
Bloomington IN 47408

Sample Matrix: GR. WATER
Sample Date: 08/25/1993
Sample Received: 08/26/1993
Report Date: 09/09/1993

Authorized Release of Data:

Tom Hansen
Project Manager

PROJECT# 07029.00 KEYSTONE QUARTERLY

Customer Sample ID: T-11B

Lab #	Analysis	Results	DL *	**	Date Analyzed	Method	
10778-101	VOA	ATTACHED	µg/L 5.0	µg/L	RP	08/29/1993	USEPA-8240

* DL - Detection Limit

** Analyst Initials

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-11B

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-101

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	35
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-11B

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-101

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	7
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten

WW Engineering & Science

Customer Sample ID: T-11C

Sample Matrix: GR. WATER
Sample Date: 08/25/1993
Sample Received: 08/26/1993
Report Date: 09/09/1993

PROJECT# 07029.00 KEYSTONE QUARTERLY

Lab # Analysis	Results	DL *	**	Date Analyzed	Method
10778-102 VOA	ATTACHED	µg/L 5.0	µg/L RP	08/29/1993	USEPA-8240

* DL = Detection Limit

** Analyst Initials

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-11C

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-102

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	33
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-11C

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-102

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-13B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-123

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<9
1,1,2,2-Tetrachloroethane	<9
1,1,2-Trichloroethane	<9
1,1-Dichloroethane	<9
1,1-Dichloroethene	<9
1,2-Dichloroethane	<9
1,2-Dichloropropane	<9
2-Butanone	<180
2-Chloroethyl vinyl ether	<18
2-Hexanone	<90
4-Methyl-2-pentanone	<90
Acetone	<180
Benzene	<9
Bromodichloromethane	<9
Bromoform	<9
Bromomethane	<18
Carbon Disulfide	<180
Carbon Tetrachloride	<9
Chlorobenzene	<9
Chloroethane	<18
Chloroform	<9
Chloromethane	<18
Dibromochloromethane	<9
Ethylbenzene	<9
Methylene Chloride	<9
Styrene	<9
Tetrachloroethene	<9
Toluene	<9
Trichloroethene	72
Vinyl Acetate	<90
Vinyl Chloride	<18

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-13B

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-123

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	190
cis-1,3-Dichloropropene	<9
m-Xylene/p-Xylene	<9
o-Xylene	<9
trans-1,2-Dichloroethene	<9
trans-1,3-Dichloropropene	<9

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-16

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-121

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<13
1,1,2,2-Tetrachloroethane	<13
1,1,2-Trichloroethane	<13
1,1-Dichloroethane	<13
1,1-Dichloroethene	<13
1,2-Dichloroethane	<13
1,2-Dichloropropane	<13
2-Butanone	<260
2-Chloroethyl vinyl ether	<26
2-Hexanone	<130
4-Methyl-2-pentanone	<130
Acetone	<260
Benzene	<13
Bromodichloromethane	<13
Bromoform	<13
Bromomethane	<26
Carbon Disulfide	<260
Carbon Tetrachloride	<13
Chlorobenzene	<13
Chloroethane	<26
Chloroform	<13
Chloromethane	<26
Dibromochloromethane	<13
Ethylbenzene	<13
Methylene Chloride	<13
Styrene	<13
Tetrachloroethene	<13
Toluene	<13
Trichloroethene	340
Vinyl Acetate	<130
Vinyl Chloride	<26

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10775

Date Received: 08/25/1993

**Customer Sample Ref:
T-16**

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-121

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS (μg/L)
cis-1,2-Dichloroethene	<13
cis-1,3-Dichloropropene	<13
m-Xylene/p-Xylene	<13
o-Xylene	<13
trans-1,2-Dichloroethene	<13
trans-1,3-Dichloropropene	<13

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-17

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-111

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	1600
1,1,2,2-Tetrachloroethane	<90
1,1,2-Trichloroethane	<90
1,1-Dichloroethane	<90
1,1-Dichloroethene	440
1,2-Dichloroethane	<90
1,2-Dichloropropane	<90
2-Butanone	<1800
2-Chloroethyl vinyl ether	<180
2-Hexanone	<900
4-Methyl-2-pentanone	<900
Acetone	<1800
Benzene	<90
Bromodichloromethane	<90
Bromoform	<90
Bromomethane	<180
Carbon Disulfide	<1800
Carbon Tetrachloride	220
Chlorobenzene	<90
Chloroethane	<180
Chloroform	<90
Chloromethane	<180
Dibromochloromethane	<90
Ethylbenzene	<90
Methylene Chloride	<90
Styrene	<90
Tetrachloroethene	270
Toluene	<90
Trichloroethene	220
Vinyl Acetate	<900
Vinyl Chloride	<180

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-17

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-111

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
cis-1,2-Dichloroethene	88
cis-1,3-Dichloropropene	<90
m-Xylene/p-Xylene	<90
o-Xylene	<90
trans-1,2-Dichloroethene	<90
trans-1,3-Dichloropropene	<90

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-17 REP

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-112

Date Analyzed: 08/27/1993

Method: SW846-8240.

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	1400
1,1,2,2-Tetrachloroethane	<100
1,1,2-Trichloroethane	<100
1,1-Dichloroethane	<100
1,1-Dichloroethene	400
1,2-Dichloroethane	<100
1,2-Dichloropropane	<100
2-Butanone	<2000
2-Chloroethyl vinyl ether	<200
2-Hexanone	<1000
4-Methyl-2-pentanone	<1000
Acetone	<2000
Benzene	<100
Bromodichloromethane	<100
Bromoform	<100
Bromomethane	<200
Carbon Disulfide	<2000
Carbon Tetrachloride	200
Chlorobenzene	<100
Chloroethane	<200
Chloroform	<100
Chloromethane	<200
Dibromochloromethane	<100
Ethylbenzene	<100
Methylene Chloride	<100
Styrene	<100
Tetrachloroethene	240
Toluene	<100
Trichloroethene	220
Vinyl Acetate	<1000
Vinyl Chloride	<200

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-17 REP

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-112

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<100
cis-1,3-Dichloropropene	<100
m-Xylene/p-Xylene	<100
o-Xylene	<100
trans-1,2-Dichloroethene	<100
trans-1,3-Dichloropropene	<100

LABORATORY REPORT

Attn: Bob Aten

WW Engineering & Science

Customer Sample ID: T-19C

Sample Matrix: GR. WATER
Sample Date: 08/25/1993
Sample Received: 08/26/1993
Report Date: 09/09/1993

PROJECT# 07029.00 KEYSTONE QUARTERLY

Lab #	Analysis	Results	DL *	**	Date Analyzed	Method
10778-104	VOA	ATTACHED	µg/L 5.0	µg/L RP	08/30/1993	USEPA-8240

* DL - Detection Limit

** Analyst Initials

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-19C

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-104

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	17
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-19C

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-104

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-20

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-122

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	9
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-20

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-122

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten

WW Engineering & Science

Customer Sample ID: T-23

Sample Matrix: GR. WATER
Sample Date: 08/25/1993
Sample Received: 08/26/1993
Report Date: 09/09/1993

PROJECT# 07029.00 KEYSTONE QUARTERLY

Lab #	Analysis	Results	DL *	**	Date Analyzed	Method
10778-103	VOA	ATTACHED	µg/L 5.0	µg/L RP	08/29/1993	USEPA-8240

* DL - Detection Limit

** Analyst Initials

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-23

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-103

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	8
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
T-23

Report Date: 09/09/1993

Matrix: GR. WATER

Lab Sample ID: 10778-103

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
T-15

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-109

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/27/1993

Customer Sample Ref:
T-15

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-109

Date Analyzed: 08/26/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
BLANK 208

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-117

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
BLANK 208

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-117

Date Analyzed: 08/27/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
BLANK 218

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-119

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	7
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
BLANK 218

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-119

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
BLANK 221

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-118

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	7
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
BLANK 221

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-118

Date Analyzed: 08/30/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

LABORATORY REPORT

Attn: Bob Aten

WW Engineering & Science

Customer Sample ID: TRIP BLANK

Sample Matrix: DI WATER
Sample Date: 08/25/1993
Sample Received: 08/26/1993
Report Date: 09/09/1993

PROJECT# 07029.00 KEYSTONE QUARTERLY

Lab # Analysis	Results	DL *	**	Date Analyzed	Method
10778-105 VOA	ATTACHED $\mu\text{g/L}$	5.0 $\mu\text{g/L}$	RP	08/29/1993	USEPA-8240

* DL - Detection Limit

** Analyst Initials

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10778

Date Received: 08/26/1993

Customer Sample Ref:
TRIP BLANK

Report Date: 09/09/1993

Matrix: DI WATER

Lab Sample ID: 10778-105

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10778

Date Received: 08/26/1993

Customer Sample Ref:
TRIP BLANK

Report Date: 09/09/1993

Matrix: DI WATER

Lab Sample ID: 10778-105

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
TRIP BLANK

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-124

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10775

Date Received: 08/25/1993

Customer Sample Ref:
TRIP BLANK

Report Date: 09/20/1993

Matrix: GR. WATER

Lab Sample ID: 10775-124

Date Analyzed: 08/29/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

STATEMENT OF DATA QUALIFICATIONS

CLIENT: WW ENGINEERING & SCIENCE

LAB REFERENCE #: 10778

The following analyses have been qualified for the reasons cited.

Sample ID (s): T-10

Parameter: VOA

Explanation:

Detection limit elevated due to high hits of other target compounds.

NOTE: This document is included as part of the Laboratory Report for the above referenced submittal and must be retained as a permanent record thereof.

PHONE (615) 476-7766
FAX (615) 476-9217

AMERICAN ANALYTICAL LABORATORY
CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

1550 Thirty-Seventh St., NE
Cleveland, TN 37312

PURCHASE ORDER NUMBER	DATE REPORT REQUIRED:	ANALYSES REQUIRED				
	TURNAROUND TIME: NORMAL _____ RUSH _____	PRESERVATIVE	40mL GLASS	VOA		
REPORT TO:	COMMENTS / POSSIBLE HAZARDS:	CONTAINER TYPE				
Bob Aten WWES 5010 Stone Mill Rd Bloomington, IN 47408						
BILL TO: 07029.00	DISPOSAL METHOD: RETURN TO CUSTOMER: _____ OTHER INSTRUCTIONS: FOR LAB USE ONLY: Receiving in good condition. No visible damage.					
SAMPLE I.D.	DATE	TIME	SAMPLE TYPE	NO. OF CONT.		
W-3D ..	8/24/93	8:39 AM	WTR	2	X	
W-4D ..	8/23/93	3:57 pm		2	X	
W-1D ..	8/24/93	4:05 pm		2	X	
W-2 ..	8/24/93	11:10 AM		2	X	
T-2A ..	8/24/93	11:17 AM		2	X	
T-9 ..	8/24/93	11:43 AM		2	X	
T-3 ..	8/24/93	11:15 AM		2	X	
T-9 Rep ..	8/21/93	11:44 AM		2	X	
T-15 ..	8/24/93	2:14 pm		2	X	
T-16A ..	8/24/93	2:10 pm		2	X	

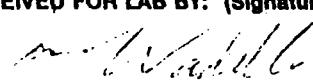
RELINQUISHED BY: (Signature) <i>Rdg/plus</i>	DATE / TIME 8/24/93 5:59	RELINQUISHED BY: (Signature)	DATE / TIME	RELINQUISHED BY: (Signature)	DATE / TIME 8/25/93 7:50
RECEIVED BY: (Signature)		RECEIVED BY: (Signature)		RECEIVED FOR LAB BY: (Signature) <i>Tom Weddle</i>	

PHONE (615) 476-7766
FAX (615) 476-9217

AMERICAN ANALYTICAL LABORATORY
CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

1550 Thirty-Seventh St., NE
Cleveland, TN 37312

PURCHASE ORDER NUMBER	DATE REPORT REQUIRED:	ANALYSES REQUIRED				
	TURNAROUND TIME: NORMAL <input type="checkbox"/> RUSH <input checked="" type="checkbox"/>	PRESERVATIVE				
REPORT TO: Bob Aten WWES 5010 Stone Mill Rd Blomington, IN 47408	COMMENTS / POSSIBLE HAZARDS:	CONTAINER TYPE	HCl	40 ml Glass		
BILL TO:	DISPOSAL METHOD: RETURN TO CUSTOMER: <input type="checkbox"/> OTHER INSTRUCTIONS:	VOA				
FOR LAB USE ONLY: Received in good condition in plastic bag						
SAMPLE I.D.	DATE	TIME	SAMPLE TYPE	NO. OF CONT.		
T-17	8/24/93	3:07pm	WTR	2	X	
T-17 Rep	8/24/93	3:07pm		2	X	
T-6 A	8/24/93	3:08pm		2	X	
T-6 B Rep	8/24/93	3:10pm		2	X	
T-4 A	8/24/93	3:44pm		2	X	
T-4 B	8/24/93	3:08pm		2	X	
Blank 208	8/24/93	9:45am		2	X	
Blank 221	8/24/93	9:35am		2	X	
Blank 218	8/24/93	9:40am		2	X	
T-1	8/24/93	4:10pm		2	X	

RELINQUISHED BY: (Signature)	DATE / TIME	RELINQUISHED BY: (Signature)	DATE / TIME	RELINQUISHED BY: (Signature)	DATE / TIME
	8/24/93 5:57pm				
RECEIVED BY: (Signature)	RECEIVED BY: (Signature)	RECEIVED FOR LAB BY: (Signature)			

CHAIN OF CUSTODY RECORD

3178



WW Engineering & Science, Inc.
5010 Stone Mill Road, Bloomington, Indiana 47408
Phone (812)336-0972 Fax (812)336-3991

PROJECT Keystone

PROJECT NO.

SAMPLERS J
ARV, JTR, JDA, RJF

Relinquished By	Date	Time	Received By	Date	Time	Remarks
JK Flores	8/24/93	5:55P				Received in good condition in the glass jar
Relinquished By	Date	Time	Received For Lab By	Date	Time	
			John Maffit	8/25/93	7:30A	

***MATRIX: WATER (WTR), WASTEWATER (WW), SOIL, SLUDGE (SLU), AIR, OIL, HAZARDOUS WASTE (HW)**

Chain of Custody Record

Analytical Services

COC No.

No 30519

WWES Proj. Mgr.	Project Name																		
Bob Aten	Keystone																		
WWES Proj. No.	Sampler (Print)					APV JTR RIF JDA													
07029.00	Sampler Signature																		
Date Sampled	Time Sampled	Matrix*	Composite	Grab	Sample Identification					No. of Containers	Container Type	No's Correspond to Bottle Packing List	Analysis Required/Comments					Sample No.	Filtered Date/Time
8/25/93	8:38AM	WTR	X		T - 11 B								2			VOA			
8/25/93	8:45AM		X		T - 11 C					2									
8/25/93	9:11am		X		T - 23					2									
8/25/93	9:30AM		X		T - 19 C					2									
8/25/93	9:50AM		X		Trip Blank					2									
8/25/93	10:26		X		T - 10					2									
Relinquished By:					Date/Time	Received By:					Received to Lab By:	Date/Time					Logged in By:	Date/Time	
<i>D. Aten</i>					8/25/93						<i>John Brinkley</i>	8/26/93							
<i>Received in good condition on re- -packs 48</i>																			

use PA

**QUARTERLY GROUND WATER REMEDIATION
PROGRAM TECHNICAL MEMORANDUM
FOR MAY 1993**

RECEIVED
JUL 30 1993
IEPA - BOL
PERMIT SECTION

**KEYSTONE STEEL & WIRE COMPANY
BARTONVILLE, ILLINOIS**

July 1993



**QUARTERLY GROUND WATER REMEDIATION
PROGRAM TECHNICAL MEMORANDUM
FOR MAY 1993**

**KEYSTONE STEEL & WIRE COMPANY
BARTONVILLE, ILLINOIS**

July 1993

TECHNICAL MEMORANDUM

DATE: July 27, 1993

TO: Ken Lovett
Illinois Environmental Protection Agency
Permit Section
Division of Land Pollution Control
2200 Churchill Road
Springfield, IL 62794-9276

FROM: Robert E. Aten
WW Engineering & Science
5010 Stone Mill Road
Bloomington, IN 47408

RE: Keystone Steel & Wire Company
Quarterly Ground Water Technical Memorandum,
May 1993 Sampling Event

This memorandum includes all May, 1993 quarterly ground water analytical data (Table 1) for the Keystone TCE ground water remediation program, and the ground water and surface water elevation data for April, May, and June, 1993 (Table 2). A piezometric surface map for the May 24, 1993 ground water measurements is shown on Figure 1, and concentration maps for TCE, 1,1,1-trichloroethane and total volatiles are presented on Figures 2, 3 and 4, respectively. All sampling and analytical procedures were consistent with the sampling plan presented in the Keystone Ground Water Remediation Program report submitted June 15, 1992.

All analytical results were validated using SW 846 protocols and the data have been qualified accordingly on Table 1. A letter from the project chemist discussing data validation is included in the Appendix. Also included in the Appendix are the laboratory data sheets documenting dates of analyses and analytical methods, and the chain of custody forms documenting date and time of sampling. A complete copy of the data validation package is

retained in our office and at the analytical laboratory. Part or all of the QA/QC data will be provided upon request.

The piezometric surface is consistent with previous data indicating little change, if any, in direction of ground water movement and contaminant migration. The water levels (Figure 1) in the area of the contaminant plume in May, 1993 were three to four feet higher than in February, 1993. The June, 1993 water levels (Table 2) are about the same as the May water levels.

Concentrations of the major contaminants (Figures 2 and 3) are relatively consistent with previous data, except that the concentrations are somewhat lower than those reported for the February, 1993 data.

All air, water, and construction permits have been received. They include:

- a. Joint Construction and Operating Permit issued by IEPA Division of Air Pollution Control, January 11, 1993.
- b. Construction Permit issued by IEPA Division of Water Pollution Control, April 16, 1993.
- c. Modified (NPDES) Permit issued by IEPA Division of Water Pollution Control, June 29, 1993.

The detailed designs for the air stripping system were submitted to IEPA on February 22, 1993, prior to receipt of the construction and NPDES permits, and the Record Drawings will be submitted to IEPA upon completion of construction. Construction activities were initiated on July 12, 1993 and the air stripper system will be completed and in operation by February 28, 1994 (eight months after receipt of the Modified NPDES permit) as specified in Section XII 46.A.ii. of the Consent Order (Case No. 93 CH 000103).

Monitoring well T-24 was destroyed during railroad construction activities and a new well will be installed in August. Monitoring well T-10 was damaged in March or April of 1993 and will be repaired in August.

The new purge wells (B, C, and D) for the air stripper system will be installed in August and September, 1993.

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
MAY 25-26, 1993

INVESTIGATIVE WELLS

WELL NUMBER	W-1D	W-2	W-2		W-4D	T-1	T-2A (1)	T-3	T-4A
			Rep	W-3D					
Temperature, field (C)	14.8	11.5	11.2	14.8	14.0	NA	16.5	17.0	17.2
pH, field	6.8	6.5	6.5	6.6	7.0	6.3	6.8	7.1	6.7
SpC (at 25 C)	1800	1800	1800	2600	1500	4900	1900	950	2000
VOLATILES (ug/L)									
Carbon Tetrachloride	12	<10	<10	15	<20	<15	<5	110	<10
1,1-Dichloroethane	<10	330	300	14	<20	<15	7	33	<10
1,1-Dichloroethylene	63	100	99	28	<20	<15	19	300	<10
1,2-Dichloroethylene (total)	25	<10	<10	19	<20	74	13	140	<10
Tetrachloroethylene	<10	<10	<10	<15	<20	<15	<5	<25	<10
1,1,1-Trichloroethane	76	18	16	90	<20	<15	12	740	<10
Trichloroethylene	280	<10	<10	320	310	470	170 J	400	170
Vinyl Chloride	<20	26	22	<30	<40	<30	<10	<50	<20

INVESTIGATIVE WELLS

WELL NUMBER	T-4B	T-6A	T-6B	T-7B	T-9	T-9		T-10	T-11B (1)	T-11C
						Rep	W-10			
Temperature, field (C)	15.8	12.8	14.2	19.5	21.5	NA	18.5	NA	NA	NA
pH, field	6.7	6.3	7.0	7.0	7.1	7.0	6.1	6.6	6.8	
SpC (at 25 C)	2000	1500	1500	1700	1200	1200	6300	2600	2000	
VOLATILES (ug/L)										
Carbon Tetrachloride	<10	71	<5	<90	26	25	<25	<5	<5	<5
1,1-Dichloroethane	<10	58	9	<90	12	12	<25	<5	<5	<5
1,1-Dichloroethylene	54	100	18	<90	96	93	<25	<5	<5	<5
1,2-Dichloroethylene (total)	<10	<25	11	<90	<5	<5	220	7	<5	<5
Tetrachloroethylene	<10	<25	<5	<90	56	54	<25	<5	<5	<5
1,1,1-Trichloroethane	<10	430	29	<90	170	160	<25	<5	<5	<5
Trichloroethylene	280	<25	<5	1600	40	44	730	35	J	25
Vinyl Chloride	<20	<50	<10	<180	<10	<10	<50	<10	<10	<10

NA - not analyzed

J - estimated value

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

(1) Trichloroethylene data estimated due to accuracy and precision results out of compliance

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
MAY 25-26, 1993

INVESTIGATIVE WELLS

WELL NUMBER	T11-C		T-16						
	Rep	T-13B	T-16	(2)	Rep	T-17	T-19C	T-20	T-23
Temperature, field (C)	NA	18.0	16.0	15.5	NA	12.0	15.0	12	
pH, field	6.8	5.8	6.7	6.6	7.1	6.9	6.4	7.0	
SpC (at 25 C)	2000	12,000	2800	2800	900	2700	3800	2900	
VOLATILES (ug/L)									
Carbon Tetrachloride	<5	<10	<25	<25	54	<5	<5	<5	
1,1-Dichloroethane	<5	<10	<25	<25	52	<5	<5	<5	
1,1-Dichloroethylene	<5	<10	<25	<25	120	<5	<5	<5	
1,2-Dichloroethylene (total)	<5	170	31	J 34	76	<5	<5	<5	
Tetrachloroethylene	<5	<10	<25	<25	110	<5	<5	<5	
1,1,1-Trichloroethane	<5	<10	<25	<25	370	<5	<5	<5	
Trichloroethylene	54	67	480	J 510	88	20	<5	<5	
Vinyl Chloride	<10	<20	<50	<50	<20	<10	<10	<10	

BASE WELLS

WELL NUMBER	T-2B	T-5A	T-5B	T-5C	T-6C	T-7A	T-8	T-11A	T-14
Temperature, field (C)	15.0	15.3	14.9	14.8	15.0	18.0	12.0	NA	15.0
pH, field	6.6	7.0	7.0	6.7	6.9	6.6	7.0	6.9	6.8
SpC (at 25 C)	4000	1300	2200	3400	3600	3600	2000	1200	2500
VOLATILES (ug/L)									
Carbon Tetrachloride	<5	<5	<5	<10	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<10	<5	<5	<5	<5	<5
1,1-Dichloroethylene	<5	<5	<5	<10	<5	<5	<5	<5	<5
1,2-Dichloroethylene (total)	<5	<5	<5	<10	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<10	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<10	<5	<5	<5	<5	<5
Trichloroethylene	<5	<5	<5	<10	<5	<5	<5	<5	<5
Vinyl Chloride	<10	<10	<10	<20	<10	<10	<10	<10	<10

NA - not analyzed

J - estimated value

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

(2) positive data considered estimated due to high surrogate compound recovery

TABLE 1
GROUND WATER MONITORING RESULTS
GROUND WATER ASSESSMENT STUDY
MAY 25-26, 1993
BASE WELL

WELL NUMBER	T-18	T-19A	T-19B	T-21	T-22A	T-22B	T-25A	T-25B
Temperature, field (C)	NA	11.8	13.0	15.0	12.0	15.0	12.5	13.0
pH, field	7.2	7.4	7.0	6.6	7.4	7.6	7.0	7.1
SpC (at 25 C)	850	1500	1400	2000	590	1100	1100	1600
VOLATILES (ug/L)								
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethylene	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethylene (total)	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethylene	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Chloride	<10	<10	<10	<10	<10	<10	<10	<10

UPGRADIENT WELL **BLANKS** **TRIP BLANK**

WELL NUMBER	T-15	Blank	Blank	Blank	Blank	Trip
		112	118	207	217	Blank
Temperature, field (C)	12.0	NA	NA	NA	NA	NA
pH, field	7.1	NA	NA	NA	NA	NA
SpC (at 25 C)	1100	NA	NA	NA	NA	NA
VOLATILES (ug/L)						
Carbon Tetrachloride	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	<5	<5	<5	<5	<5	<5
1,1-Dichloroethylene	<5	<5	<5	<5	<5	<5
1,2-Dichloroethylene (total)	<5	<5	<5	<5	<5	<5
Tetrachloroethylene	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	<5	<5	<5	<5	<5	<5
Trichloroethylene	<5	<5	<5	<5	<5	<5
Vinyl Chloride	<10	<10	<10	<10	<10	<10

NA - not analyzed

A less than sign (<) indicates that the compound was nondetectable at the specified detection limit.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			April 29, 1993	
T-1	453.57	49.23	7.48	446.09
T-2A	450.11	44.26	4.14	445.97
T-2B	450.25	66.90	4.30	445.95
T-3	450.57	60.70	4.58	445.99
T-4A	449.42	27.24	3.81	445.61
T-4B	449.44	79.30	3.32	446.12
T-5A	448.04	33.16	1.81	446.23
T-5B	448.27	66.08	2.05	446.22
T-5C	448.21	82.84	1.95	446.26
T-6A	451.67	19.63	7.25	444.42
T-6B	451.72	34.94	5.57	446.15
T-6C	452.00	55.16	5.86	446.14
T-7A	448.55	18.18	5.50	443.05
T-7B	448.56	81.75	2.31	446.25
T-8	451.00	31.61	6.69	444.31
T-9	459.85	35.47	14.40	445.45
T-10	456.60	40.62	10.90	445.70
T-11A	451.12	40.98	5.35	445.77
T-11B	451.39	82.66	5.13	446.26
T-11C	451.23	99.21	4.85	446.38
T-12	444.93	37.64	NA	
T-13A	464.25	27.64	17.31	446.94
T-13B	464.44	32.03	17.44	447.00
T-14	452.47	102.05	6.34	446.13
T-15	454.70	20.25	5.86	448.84
T-16	450.51	41.96	4.37	446.14
T-17	461.62	41.90	17.38	444.24
T-18	462.92	32.02	13.81	449.11
T-19A	448.74	11.84	3.86	444.88
T-19B	449.45	39.83	3.27	446.18
T-19C	448.46	70.43	2.30	446.16
T-20	455.97	47.44	9.82	446.15
T-21	468.82	17.70	12.85	455.97
T-22A	447.97	68.56	1.69	446.28
T-22B	447.37	119.29	0.54	446.83
T-23	451.70	87.59	5.66	446.04
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	5.97	446.68
T-25B	453.65	94.23	6.42	447.23
P-1A	450.86	34.80	4.15	446.71
P-1B	450.75	71.26	3.97	446.78
P-2	459.71	92.43	12.83	446.88
P-3	447.27	39.37	1.79	445.48
P-4	447.23	68.41	0.95	446.28
P-5	447.11	69.97	0.92	446.19
P-6	446.90	67.14	0.77	446.13
PW-1	448.62	80.99	2.40	446.22
W-1	449.85	8.96	6.07	443.78
W-1D	448.82	50.28	2.93	445.89
W-2	451.79	12.24	7.62	444.17
W-2D	451.33	50.04	5.41	445.92
W-3	447.14	9.17	2.08	445.06
W-3D	446.94	50.34	1.14	445.80

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				
			April 29, 1993	
W-4	450.67	9.97	5.23	445.44
W-4D	449.44	50.29	3.92	445.52
W-5	464.02	22.26	15.18	448.84
W-5D	463.76	36.22	15.39	448.37
W-6	461.38	10.06	8.31	453.07
W-7	459.21	14.51	4.32	454.89
W-8	455.01	16.66	9.33	445.68
W-9	449.78	14.85	6.01	443.77
W-10	451.33	14.74	7.30	444.03
W-11	450.15	14.87	4.80	445.35
W-12	460.38	21.04	11.62	448.76
W-13	459.62	24.62	10.11	449.51
W-14	460.75	20.77	8.67	452.08
W-15	451.80	12.35	NA	
W-16	451.77	12.11	NA	
W-17	452.73	12.13	NA	
W-18	451.08	12.26	NA	
AD-1	449.02	16.06	3.12	445.90
AD-2	447.90	13.16	1.85	446.05
AD-3	447.60	15.90	1.88	445.72
AD-4	447.93	13.23	2.30	445.63
AD-5	447.57	15.87	1.86	445.71
CL-1	450.13	19.20	4.38	445.75
CL-2	450.10	20.11	5.33	444.77
CL-3	450.27	23.63	4.52	445.75
CL-4	450.56	23.29	4.64	445.92
CL-5	453.74	27.04	7.95	445.79

NA = Well not accessable

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				May 24, 1993
T-1	453.57	49.23	9.53	444.04
T-2A	450.11	44.26	6.11	444.00
T-2B	450.25	66.90	6.35	443.90
T-3	450.57	60.70	7.00	443.57
T-4A	449.42	27.24	5.68	443.74
T-4B	449.44	79.30	5.72	443.72
T-5A	448.04	33.16	3.97	444.07
T-5B	448.27	66.08	4.16	444.11
T-5C	448.21	82.84	4.27	443.94
T-6A	451.67	19.63	7.21	444.46
T-6B	451.72	34.94	7.65	444.07
T-6C	452.00	55.16	7.94	444.06
T-7A	448.55	18.18	5.95	442.60
T-7B	448.56	81.75	5.95	442.61
T-8	451.00	31.61	9.03	441.97
T-9	459.85	35.47	16.30	443.55
T-10	456.60	40.62	12.80	443.80
T-11A	451.12	40.98	7.50	443.62
T-11B	451.39	82.66	7.82	443.57
T-11C	451.23	99.21	7.72	443.51
T-12	444.93	37.64	Abandoned	
T-13A	464.25	27.64	NC	445.77
T-13B	464.44	32.03	18.67	443.32
T-14	452.47	102.05	9.15	447.85
T-15	454.70	20.25	6.85	444.26
T-16	450.51	41.96	6.25	442.34
T-17	461.62	41.90	19.28	446.97
T-18	462.92	32.02	15.95	444.40
T-19A	448.74	11.84	4.34	444.15
T-19B	449.45	39.83	5.30	444.09
T-19C	448.46	70.43	4.37	444.10
T-20	455.97	47.44	11.87	455.66
T-21	468.82	17.70	13.16	445.77
T-22A	447.97	68.56	2.20	444.67
T-22B	447.37	119.29	2.70	444.05
T-23	451.70	87.59	7.65	444.20
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	8.45	445.17
T-25B	453.65	94.23	8.48	444.14
P-1A	450.86	34.80	6.72	444.13
P-1B	450.75	71.26	6.62	443.24
P-2	459.71	92.43	16.47	443.14
P-3	447.27	39.37	4.13	445.35
P-4	447.23	68.41	1.88	443.70
P-5	447.11	69.97	3.41	443.65
P-6	446.90	67.14	3.25	443.99
PW-1	448.62	80.99	NC	443.91
W-1	449.85	8.96	6.08	443.77
W-1D	448.82	50.28	4.83	443.99
W-2	451.79	12.24	7.66	444.13
W-2D	451.33	50.04	7.40	443.93
W-3	447.14	9.17	3.15	443.99
W-3D	446.94	50.34	3.03	443.91

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE:				May 24, 1993
W-4	450.67	9.97	6.67	444.00
W-4D	449.44	50.29	6.06	443.38
W-5	464.02	22.26	17.57	446.45
W-5D	463.76	36.22	17.73	446.03
W-6	461.38	10.06	8.52	452.86
W-7	459.21	14.51	5.08	454.13
W-8	455.01	16.66	9.55	445.46
W-9	449.78	14.85	6.15	443.63
W-10	451.33	14.74	8.08	443.25
W-11	450.15	14.87	5.82	444.33
W-12	460.38	21.04	13.53	446.85
W-13	459.62	24.62	11.97	447.65
W-14	460.75	20.77	9.15	451.60
W-15	451.80	12.35	4.40	447.40
W-16	451.77	12.11	4.54	447.23
W-17	452.73	12.13	4.12	448.61
W-18	451.08	12.26	3.58	447.50
AD-1	449.02	16.06	4.02	445.00
AD-2	447.90	13.16	3.37	444.53
AD-3	447.60	15.90	2.33	445.27
AD-4	447.93	13.23	2.56	445.37
AD-5	447.57	15.87	2.31	445.26
CL-1	450.13	19.20	4.57	445.56
CL-2	450.10	20.11	4.72	445.38
CL-3	450.27	23.63	4.70	445.57
CL-4	450.56	23.29	4.82	445.74
CL-5	453.74	27.04	8.27	445.47

NA = Well not accessable
 NC = Not collected

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: June 28, 1993				
T-1	453.57	49.23	10.01	443.56
T-2A	450.11	44.26	6.27	443.84
T-2B	450.25	66.90	6.47	443.78
T-3	450.57	60.70	6.90	443.67
T-4A	449.42	27.24	5.63	443.79
T-4B	449.44	79.30	5.68	443.76
T-5A	448.04	33.16	4.28	443.76
T-5B	448.27	66.08	4.42	443.85
T-5C	448.21	82.84	4.85	443.36
T-6A	451.67	19.63	7.61	444.06
T-6B	451.72	34.94	8.04	443.68
T-6C	452.00	55.16	8.30	443.70
T-7A	448.55	18.18	5.99	442.56
T-7B	448.56	81.75	4.85	443.71
T-8	451.00	31.61	8.42	442.58
T-9	459.85	35.47	16.10	443.75
T-10	456.60	40.62	12.78	443.82
T-11A	451.12	40.98	7.35	443.77
T-11B	451.39	82.66	7.81	443.58
T-11C	451.23	99.21	7.71	443.52
T-12	444.93	37.64	Abandoned	
T-13A	464.25	27.64	18.26	445.99
T-13B	464.44	32.03	18.37	446.07
T-14	452.47	102.05	8.97	443.50
T-15	454.70	20.25	6.98	447.72
T-16	450.51	41.96	6.99	443.52
T-17	461.62	41.90	18.72	442.90
T-18	462.92	32.02	15.62	447.30
T-19A	448.74	11.84	5.02	443.72
T-19B	449.45	39.83	6.01	443.44
T-19C	448.46	70.43	5.10	443.36
T-20	455.97	47.44	12.36	443.61
T-21	468.82	17.70	13.02	455.80
T-22A	447.97	68.56	3.75	444.22
T-22B	447.37	119.29	3.72	443.65
T-23	451.70	87.59	8.45	443.25
T-24	455.70	38.99	Destroyed	
T-25A	452.65	39.58	8.96	443.69
T-25B	453.65	94.23	9.24	444.41
P-1A	450.86	34.80	7.15	443.71
P-1B	450.75	71.26	6.96	443.79
P-2	459.71	92.43	15.49	444.22
P-3	447.27	39.37	NA	
P-4	447.23	68.41	NA	
P-5	447.11	69.97	NA	
P-6	446.90	67.14	NA	
PW-1	448.62	80.99	4.89	443.73
W-1	449.85	8.96	6.35	443.50
W-1D	448.82	50.28	4.90	443.92
W-2	451.79	12.24	7.73	444.06
W-2D	451.33	50.04	7.56	443.77
W-3	447.14	9.17	3.82	443.32
W-3D	446.94	50.34	3.08	443.86

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

WELL NUMBER	T.O.C. ELEVATION (feet)	WELL DEPTH (feet)	DEPTH TO WATER BELOW T.O.C. (feet)	ELEVATION OF WATER (feet)
DATE: June 28, 1993				
W-4	450.67	9.97	6.93	443.74
W-4D	449.44	50.29	5.90	443.54
W-5	464.02	22.26	17.34	446.68
W-5D	463.76	36.22	17.69	446.07
W-6	461.38	10.06	8.50	452.88
W-7	459.21	14.51	4.70	454.51
W-8	455.01	16.66	9.58	445.43
W-9	449.78	14.85	6.27	443.51
W-10	451.33	14.74	8.35	442.98
W-11	450.15	14.87	5.63	444.52
W-12	460.38	21.04	13.41	446.97
W-13	459.62	24.62	11.75	447.87
W-14	460.75	20.77	9.33	451.42
W-15	451.80	12.35	4.45	447.35
W-16	451.77	12.11	4.47	447.30
W-17	452.73	12.13	3.77	448.96
W-18	451.08	12.26	3.65	447.43
AD-1	449.02	16.06	3.91	445.11
AD-2	447.90	13.16	2.82	445.08
AD-3	447.60	15.90	2.51	445.09
AD-4	447.93	13.23	2.94	444.99
AD-5	447.57	15.87	2.57	445.00
CL-1	450.13	19.20	4.95	445.18
CL-2	450.10	20.11	4.88	445.22
CL-3	450.27	23.63	5.02	445.25
CL-4	450.56	23.29	5.18	445.38
CL-5	453.74	27.04	8.80	444.94

NA = Well not accessable

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE:			April 29, 1993
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	4.42	443.47
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	M	
TBM-4E	452.28		
TBM-4W	449.19	M	
TBM-4S	445.68	2.50	443.18
TBM-6E	459.83		
TBM-6W	459.60	4.75	454.85
TBM-8	447.25		
TBM-9	446.88	3.25	443.63
TBM-10	449.98		
TBM-10E	450.61	0.50	450.11
TBM-11	447.22	1.25	445.97
TBM-12	443.44	2.67	440.77
Illinois River Peoria Lock & Dam upper pool			449.27
lower pool			449.17

1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.

TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE:			May 24, 1993
TBM-1E	449.27	>3.79	<445.48
TBM-1W	447.89	4.20	443.69
TBM-3N	448.61	>3.85	<444.76
TBM-3S	449.02	>3.88	<445.14
TBM-4E	452.28		
TBM-4W	449.19	>4.55	<444.64
TBM-4S	445.68	2.00	443.68
TBM-6E	459.83		
TBM-6W	459.60	4.80	454.80
TBM-8	447.25		
TBM-9	446.88	3.10	443.78
TBM-10	449.98		
TBM-10E	450.61	2.80	447.81
TBM-11	447.22	1.50	445.72
TBM-12	443.44	2.40	441.04
Illinois River Peoria Lock & Dam upper pool			440.26
lower pool			440.16

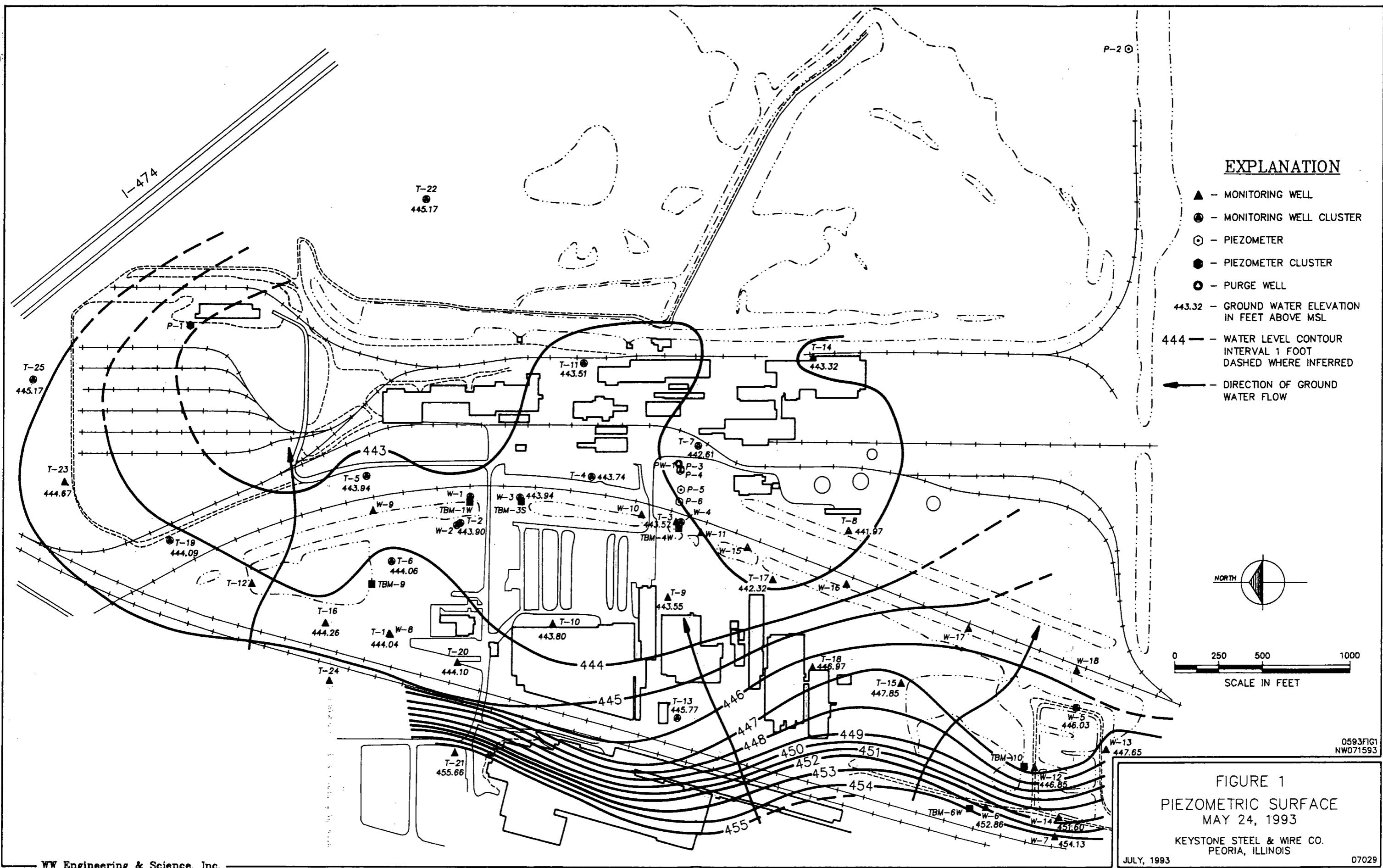
1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.

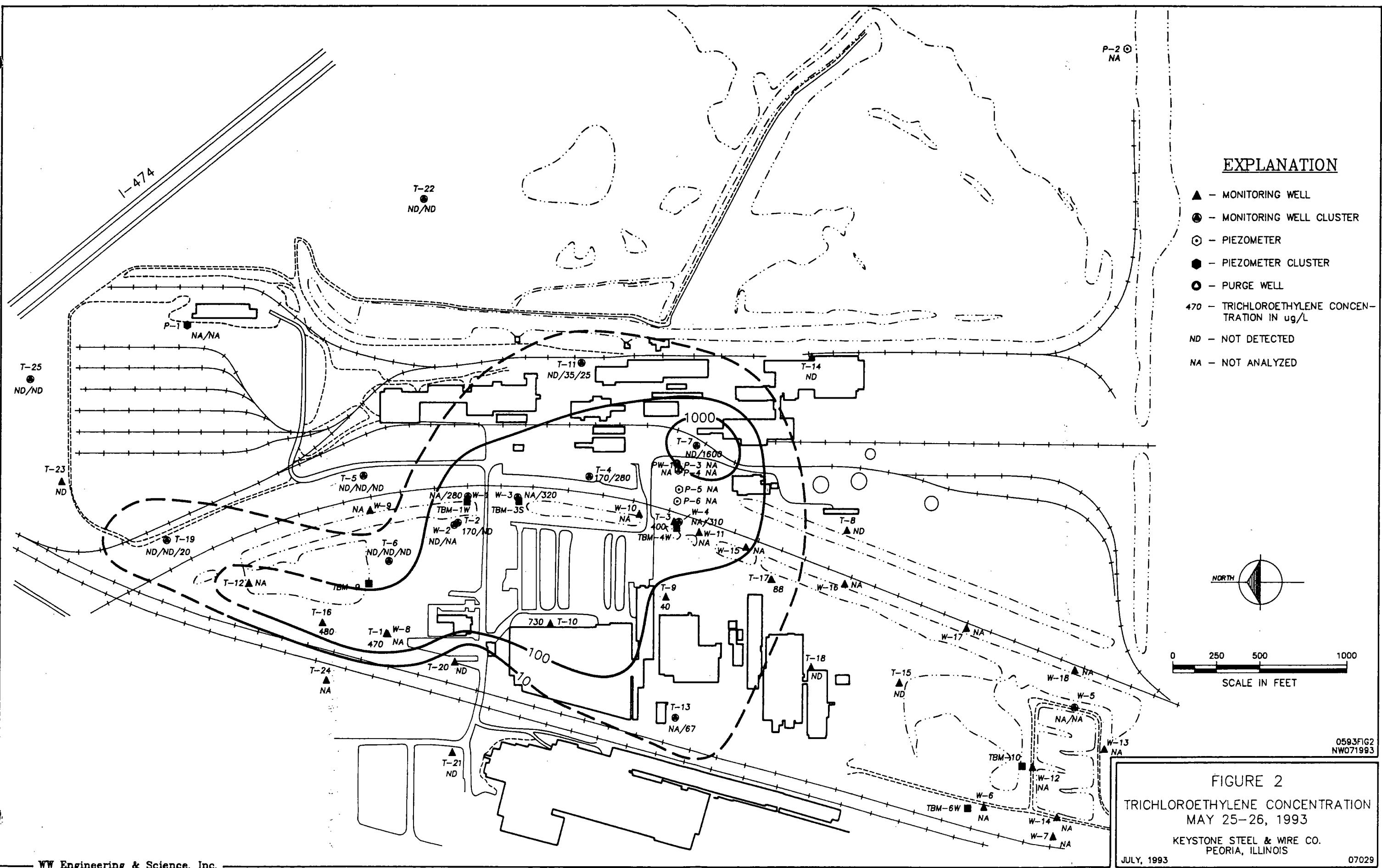
TABLE 2
KEYSTONE STEEL & WIRE COMPANY
GROUND WATER AND SURFACE WATER DATA

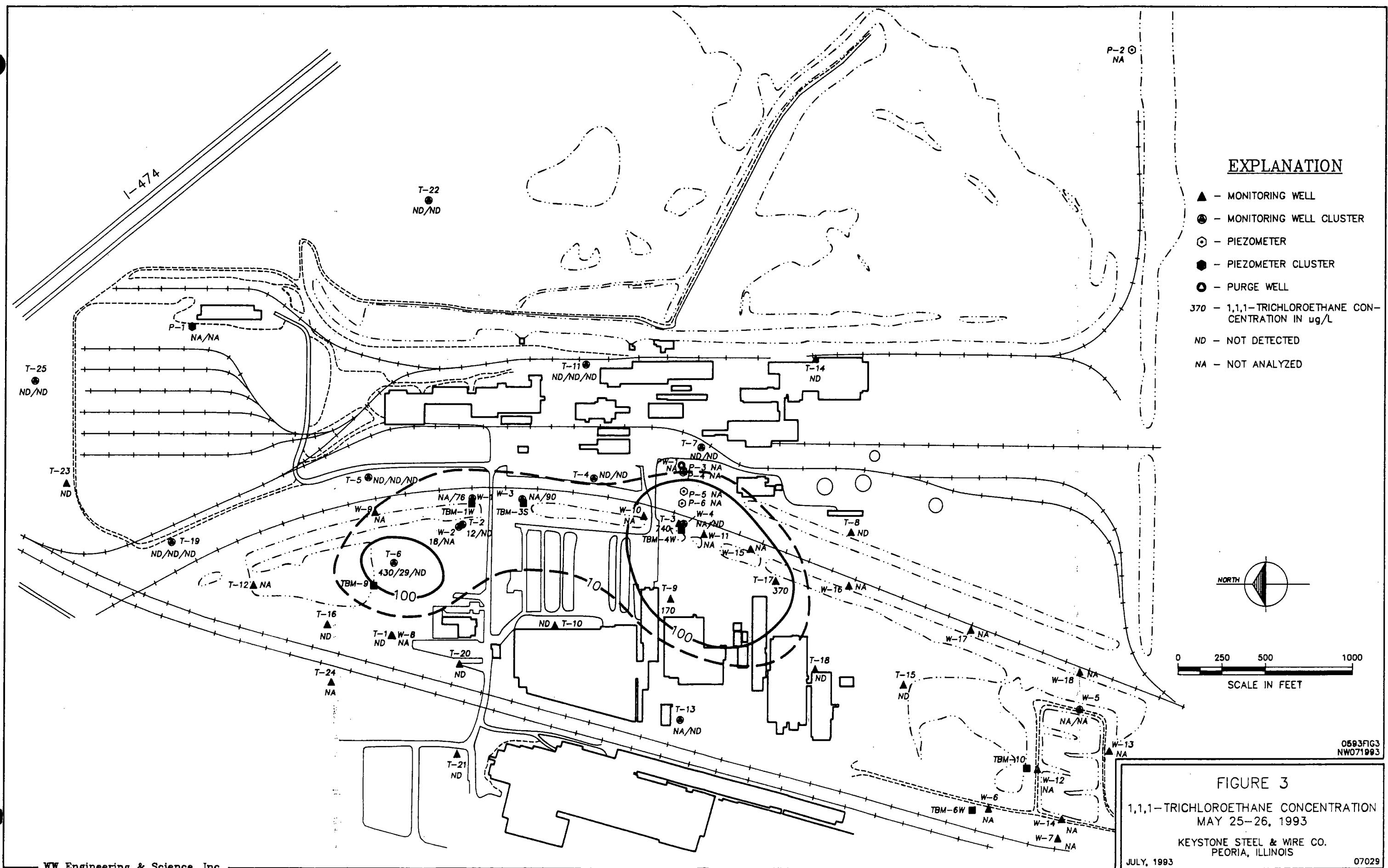
TBM LOCATION	TBM ELEVATION (feet)	DEPTH TO WATER BELOW TBM (feet)	ELEVATION OF WATER (feet)
DATE: June 28, 1993			
TBM-1E	449.27		M
TBM-1W	447.89		M
TBM-3N	448.61		M
TBM-3S	449.02		M
TBM-4E	452.28		
TBM-4W	449.19		M
TBM-4S	445.68		M
TBM-6E	459.83		
TBM-6W	459.60		M
TBM-8	447.25		
TBM-9	446.88		M
TBM-10	449.98		
TBM-10E	450.61		M
TBM-11	447.22		M
TBM-12	443.44		M

Illinois River	
Peoria Lock & Dam	
upper pool	445.90
lower pool	445.80

1. Illinois River data were obtained from the Army Corps of Engineers, Rock Island District.
2. M = missed measurement.







EXPLANATION

- ▲ - MONITORING WELL
 - Ⓐ - MONITORING WELL CLUSTER
 - - PIEZOMETER
 - Ⓑ - PIEZOMETER CLUSTER
 - - PURGE WELL
 - 370 - 1,1,1-TRICHLOROETHANE CONCENTRATION IN $\mu\text{g/L}$
 - ND - NOT DETECTED
 - NA - NOT ANALYZED

A compass rose with a horizontal line labeled "NORTH".

A horizontal scale bar with tick marks at 0, 250, 500, and 1000. Below it is the label "SCALE IN FEET".

0593FIG3
NW071993

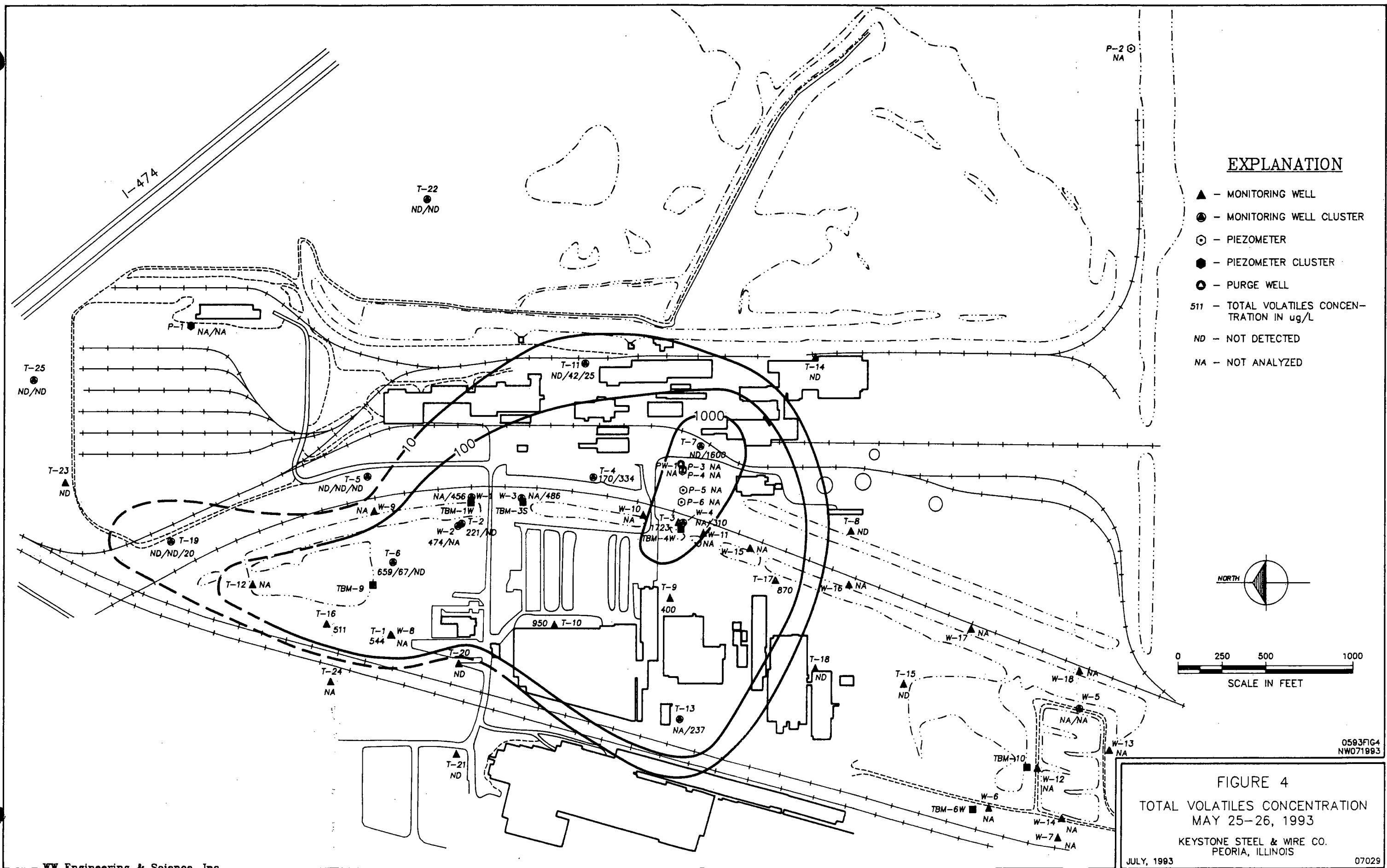
FIGURE 3

1,1,1-TRICHLOROETHANE CONCENTRATION
MAY 25-26, 1993

KEYSTONE STEEL & WIRE CO.
PEORIA, ILLINOIS

JULY, 199

07029





WW Engineering & Science
A Summit Company

June 28, 1993

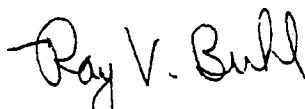
Dr. Robert Aten
WW Engineering & Science
5010 Stone Mill Road
Bloomington, IN 47408

Dear Dr. Aten:

Enclosed please find two copies of the Keystone Steel and Wire data for the quarterly monitoring program. All data were validated against Table 5 of the QAPP and SW846 protocols. All data were deemed acceptable with the exception of the following: trichloroethylene data for sample 10062-136 (T-11B) and sample 10062-145 (T-2A) should be considered estimated due to accuracy and precision results being out of compliance; all positive volatile data for samples 10062-109 (T-16) and 10062-115 (T-5C) should be considered estimated due to a high surrogate compound recovery; and metals data for samples W-5 and W-13 should be considered estimated due to improper sample preservation (samples were received at a pH of 7 rather than <2). Review of the chain of custody forms for volatiles revealed that samples were received in good condition but at 17°C instead of 4°C. It is difficult to say if the integrity of the samples have been compromised, and perhaps the only way to make a judgment about this is to compare this data with the historical data base. If you have any questions, please call.

Sincerely,

WW ENGINEERING & SCIENCE
ENVIRONMENTAL LABORATORY DIVISION



Ray V. Buhl
Senior Project Chemist

Buhl4/aten

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Bloomington, IN Chattanooga, TN Columbus, OH Detroit, MI Indianapolis, IN Milwaukee, WI Minneapolis, MN

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-1D

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-137

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	76
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	63
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	12
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	280
Vinyl Acetate	<100
Vinyl Chloride	<20

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-1D

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-137

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	25
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-2

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-110

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS (µg/L)
1,1,1-Trichloroethane	18
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	330
1,1-Dichloroethene	100
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	<10
Vinyl Acetate	<100
Vinyl Chloride	

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-2

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-110

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-2REP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-111

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	16
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	300
1,1-Dichloroethene	99
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Brómoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	<10
Vinyl Acetate	<100
Vinyl Chloride	

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-2REP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-111

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-3D

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-138

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	90
1,1,2,2-Tetrachloroethane	<15
1,1,2-Trichloroethane	<15
1,1-Dichloroethane	14
1,1-Dichloroethene	28
1,2-Dichloroethane	<15
1,2-Dichloropropane	<15
2-Butanone	<300
2-Chloroethyl vinyl ether	<30
2-Hexanone	<150
4-Methyl-2-pentanone	<150
Acetone	<300
Benzene	<15
Bromodichloromethane	<15
Bromoform	<15
Bromomethane	<30
Carbon Disulfide	<300
Carbon Tetrachloride	15
Chlorobenzene	<15
Chloroethane	<30
Chloroform	<15
Chloromethane	<30
Dibromochloromethane	<15
Ethylbenzene	<15
Methylene Chloride	<15
Styrene	<15
Tetrachloroethene	<15
Toluene	<15
Trichloroethene	320
Vinyl Acetate	<150
Vinyl Chloride	<30

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-3D

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-138

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	19
cis-1,3-Dichloropropene	<15
m-Xylene/p-Xylene	<15
o-Xylene	<15
trans-1,2-Dichloroethene	<15
trans-1,3-Dichloropropene	<15

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-4D

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-112

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<20
1,1,2,2-Tetrachloroethane	<20
1,1,2-Trichloroethane	<20
1,1-Dichloroethane	<20
1,1-Dichloroethene	<20
1,2-Dichloroethane	<20
1,2-Dichloropropane	<20
2-Butanone	<400
2-Chloroethyl vinyl ether	<40
2-Hexanone	<200
4-Methyl-2-pentanone	<200
Acetone	<400
Benzene	<20
Bromodichloromethane	<20
Bromoform	<20
Bromomethane	<40
Carbon Disulfide	<400
Carbon Tetrachloride	<20
Chlorobenzene	<20
Chloroethane	<40
Chloroform	<20
Chloromethane	<40
Dibromochloromethane	<20
Ethylbenzene	<20
Methylene Chloride	<20
Styrene	<20
Tetrachloroethene	<20
Toluene	<20
Trichloroethene	310
Vinyl Acetate	<200
Vinyl Chloride	<40

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
W-4D

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-112

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<20
cis-1,3-Dichloropropene	<20
m-Xylene/p-Xylene	<20
o-Xylene	<20
trans-1,2-Dichloroethene	<20
trans-1,3-Dichloropropene	<20

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-1

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-127

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<15
1,1,2,2-Tetrachloroethane	<15
1,1,2-Trichloroethane	<15
1,1-Dichloroethane	<15
1,1-Dichloroethene	<15
1,2-Dichloroethane	<15
1,2-Dichloropropane	<15
2-Butanone	<300
2-Chloroethyl vinyl ether	<30
2-Hexanone	<150
4-Methyl-2-pentanone	<150
Acetone	<300
Benzene	<15
Bromodichloromethane	<15
Bromoform	<15
Bromomethane	<30
Carbon Disulfide	<300
Carbon Tetrachloride	<15
Chlorobenzene	<15
Chloroethane	<30
Chloroform	<15
Chloromethane	<30
Dibromochloromethane	<15
Ethylbenzene	<15
Methylene Chloride	<15
Styrene	<15
Tetrachloroethene	<15
Toluene	<15
Trichloroethene	470
Vinyl Acetate	<150
Vinyl Chloride	<30

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10062

Date Received: 05/27/1993

**Customer Sample Ref:
T-1**

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-127

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	74
cis-1,3-Dichloropropene	<15
m-Xylene/p-Xylene	<15
o-Xylene	<15
trans-1,2-Dichloroethene	<15
trans-1,3-Dichloropropene	<15

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-2A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-145

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	12
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	7
1,1-Dichloroethene	19
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	170
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993 **Customer Sample Ref:**
 T-2A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-145

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	13
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-3

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-149

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	740
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	33
1,1-Dichloroethene	300
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	110
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	400
Vinyl Acetate	<250
Vinyl Chloride	<50

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-3

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-149

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	140
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-4A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-105

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	<10
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	170
Vinyl Acetate	<100
Vinyl Chloride	<20

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-4A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-105

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-4B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-106

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	54
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	280
Vinyl Acetate	<100
Vinyl Chloride	<20

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-4B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-106

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-6A

Report Date: 06/18/1993

Matrix: GR WATER.

Lab Sample ID: 10062-130

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	430
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	58
1,1-Dichloroethene	100
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	71
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	<25
Vinyl Acetate	<250
Vinyl Chloride	<50

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993.

Customer Sample Ref:
T-6A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-130

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
cis-1,2-Dichloroethene	<25
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-6B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-132

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	29
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	9
1,1-Dichloroethene	18
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-6B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-132

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
cis-1,2-Dichloroethene	11
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-7B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-101

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<90
1,1,2,2-Tetrachloroethane	<90
1,1,2-Trichloroethane	<90
1,1-Dichloroethane	<90
1,1-Dichloroethene	<90
1,2-Dichloroethane	<90
1,2-Dichloropropane	<90
2-Butanone	<1800
2-Chloroethyl vinyl ether	<180
2-Hexanone	<900
4-Methyl-2-pentanone	<900
Acetone	<1800
Benzene	<90
Bromodichloromethane	<90
Bromoform	<90
Bromomethane	<180
Carbon Disulfide	<1800
Carbon Tetrachloride	<90
Chlorobenzene	<90
Chloroethane	<180
Chloroform	<90
Chloromethane	<180
Dibromochloromethane	<90
Ethylbenzene	<90
Methylene Chloride	<90
Styrene	<90
Tetrachloroethene	<90
Toluene	<90
Trichloroethene	1600
Vinyl Acetate	<900
Vinyl Chloride	<180

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-7B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-101

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<90
cis-1,3-Dichloropropene	<90
m-Xylene/p-Xylene	<90
o-Xylene	<90
trans-1,2-Dichloroethene	<90
trans-1,3-Dichloropropene	<90

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-9

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-134

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	170
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	12
1,1-Dichloroethene	96
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	26
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	56
Toluene	<5
Trichloroethene	40
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-9

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-134

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-9 REP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-135

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	160
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	12
1,1-Dichloroethene	93
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	25
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	54
Toluene	<5
Trichloroethene	44
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-9 REP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-135

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-10

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-148

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<25
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	<25
1,1-Dichloroethene	<25
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	730
Vinyl Acetate	<250
Vinyl Chloride	<50

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-10

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-148

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	220
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-136

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	35
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-136

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	7
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11C

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-103

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	25
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11C

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-103

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VQA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11C DUP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-104

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	54
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11C DUP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-104

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-13B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-102

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	<10
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	67
Vinyl Acetate	<100
Vinyl Chloride	<20

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-13B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-102

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	170
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
o-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-16

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-109

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<25
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	<25
1,1-Dichloroethene	<25
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	480
Vinyl Acetate	<250
Vinyl Chloride	<50

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-16

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-109

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	31
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-16 REP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-147

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<25
1,1,2,2-Tetrachloroethane	<25
1,1,2-Trichloroethane	<25
1,1-Dichloroethane	<25
1,1-Dichloroethene	<25
1,2-Dichloroethane	<25
1,2-Dichloropropane	<25
2-Butanone	<500
2-Chloroethyl vinyl ether	<50
2-Hexanone	<250
4-Methyl-2-pentanone	<250
Acetone	<500
Benzene	<25
Bromodichloromethane	<25
Bromoform	<25
Bromomethane	<50
Carbon Disulfide	<500
Carbon Tetrachloride	<25
Chlorobenzene	<25
Chloroethane	<50
Chloroform	<25
Chloromethane	<50
Dibromochloromethane	<25
Ethylbenzene	<25
Methylene Chloride	<25
Styrene	<25
Tetrachloroethene	<25
Toluene	<25
Trichloroethene	510
Vinyl Acetate	<250
Vinyl Chloride	<50

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-16 REP

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-147

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	34
cis-1,3-Dichloropropene	<25
m-Xylene/p-Xylene	<25
o-Xylene	<25
trans-1,2-Dichloroethene	<25
trans-1,3-Dichloropropene	<25

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-17

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-141

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	370
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	52
1,1-Dichloroethene	120
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	54
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	110
Toluene	<10
Trichloroethene	88
Vinyl Acetate	<100
Vinyl Chloride	<20

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-17

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-141

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	76
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
c-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-19C

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-118

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	20
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10062

Date Received: 05/27/1993

**Customer Sample Ref:
T-19C**

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-118

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
α -Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-20

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-107

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-20

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-107

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-23

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-120

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-23

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-120

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOC Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-2B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-144

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS (µg/L)
1,1,1-Trichloroethane	<5
1,1,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-2B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-144

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-5A

Report Date: 06/18/1993

Matrix: GR. WATER

Lab Sample ID: 10062-113

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS (µg/L)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-5A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-113

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-5B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-114

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10062

Date Received: 05/27/1993

**Customer Sample Ref:
T-5B**

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-114

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10062

Date Received: 05/27/1993

**Customer Sample Ref:
T-5C**

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-115

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<10
1,1,2,2-Tetrachloroethane	<10
1,1,2-Trichloroethane	<10
1,1-Dichloroethane	<10
1,1-Dichloroethene	<10
1,2-Dichloroethane	<10
1,2-Dichloropropane	<10
2-Butanone	<200
2-Chloroethyl vinyl ether	<20
2-Hexanone	<100
4-Methyl-2-pentanone	<100
Acetone	<200
Benzene	<10
Bromodichloromethane	<10
Bromoform	<10
Bromomethane	<20
Carbon Disulfide	<200
Carbon Tetrachloride	<10
Chlorobenzene	<10
Chloroethane	<20
Chloroform	<10
Chloromethane	<20
Dibromochloromethane	<10
Ethylbenzene	<10
Methylene Chloride	<10
Styrene	<10
Tetrachloroethene	<10
Toluene	<10
Trichloroethene	<10
Vinyl Acetate	<100
Vinyl Chloride	<20

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10062

Date Received: 05/27/1993

**Customer Sample Ref:
T-5C**

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-115

Date Analyzed: 06/08/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<10
cis-1,3-Dichloropropene	<10
m-Xylene/p-Xylene	<10
c-Xylene	<10
trans-1,2-Dichloroethene	<10
trans-1,3-Dichloropropene	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-6C

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-131

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-6C

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-131

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOC Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-7A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-119

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-7A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-119

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-8

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-125

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS (µg/L)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-8

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-125

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-108

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-11A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-108

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

**Attn: Bob Aten
WW Engineering & Science**

Lab Reference # 10062

Date Received: 05/27/1993

**Customer Sample Ref:
T-14**

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-126

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-14

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-126

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-18

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-142

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-18

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-142

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-19A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-116

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-19A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-116

Date Analyzed: 06/09/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-19B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-117

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-19B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-117

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-21

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-143

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-21

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-143

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference #: 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-22A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-123

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-22A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-123

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-22B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-124

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-22B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-124

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-25A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-121

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-25A

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-121

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-25B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-122

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-25B

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-122

Date Analyzed: 06/04/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-15

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-139

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
T-15

Report Date: 06/18/1993

Matrix: GR WATER

Lab Sample ID: 10062-139

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS (µg/L)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 112

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-140

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g}/\text{L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 112

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-140

Date Analyzed: 06/06/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 118

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-129

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 118

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-129

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 207

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-133

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 207

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-133

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 217

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-128

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
BLANK 217

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-128

Date Analyzed: 06/05/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

**VOA Report
(Volatile Organic Analysis)**

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
TRIP BLANK

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-146

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
1,1,1-Trichloroethane	<5
1,1,2,2-Tetrachloroethane	<5
1,1,2-Trichloroethane	<5
1,1-Dichloroethane	<5
1,1-Dichloroethene	<5
1,2-Dichloroethane	<5
1,2-Dichloropropane	<5
2-Butanone	<100
2-Chloroethyl vinyl ether	<10
2-Hexanone	<50
4-Methyl-2-pentanone	<50
Acetone	<100
Benzene	<5
Bromodichloromethane	<5
Bromoform	<5
Bromomethane	<10
Carbon Disulfide	<100
Carbon Tetrachloride	<5
Chlorobenzene	<5
Chloroethane	<10
Chloroform	<5
Chloromethane	<10
Dibromochloromethane	<5
Ethylbenzene	<5
Methylene Chloride	<5
Styrene	<5
Tetrachloroethene	<5
Toluene	<5
Trichloroethene	<5
Vinyl Acetate	<50
Vinyl Chloride	<10

VOA Report
(Volatile Organic Analysis)

Attn: Bob Aten
WW Engineering & Science

Lab Reference # 10062

Date Received: 05/27/1993

Customer Sample Ref:
TRIP BLANK

Report Date: 06/18/1993

Matrix: DI WATER

Lab Sample ID: 10062-146

Date Analyzed: 06/07/1993

Method: SW846-8240

COMPOUND	RESULTS ($\mu\text{g/L}$)
cis-1,2-Dichloroethene	<5
cis-1,3-Dichloropropene	<5
m-Xylene/p-Xylene	<5
o-Xylene	<5
trans-1,2-Dichloroethene	<5
trans-1,3-Dichloropropene	<5

Chain of Custody Record

Analytical Services

COC No.

No 30503

WWES Proj. Mgr.	Project Name	No's Correspond to Bottle Packing List	Analysis Required/Comments		Sample No.	Date/Time Collected
R. ATEN	KESIONE QUARRY					
WWES Proj. No.	Sampler (Print)					
07029.00	Sampler Signature	R. Aten				
Date Sampled	Time Sampled	Matrix*	Composite	Grab	Sample Identification	
5/26/93	12:30P	WTR	X		T - 7 B	
5/24/93	3:00P	WTR	X		T - 1 3 B	2
5/26/93	16:30	WTR	X		T - 1 1 C	2
5/26/93	16:30	WTR	X		T - 1 1 C D U P	2
5/26/93	3:08pm	WTR	X		T - 4 A	2
5/26/93	3:32pm	WTR	X	rev	T - 4 B	2
5/26/93	4:00pm	WTR	X		T - 2 O	2
5/26/93	2:45pm	WTR	X		T - 1 1 A	2
5/26/93	2:30p	WTR	X		T - 1 6	2
Relinquished By:		Date/Time	Received By:	Received to Lab By:	Date/Time	Logged in By:
<i>Dane R. Aten</i>		5-26-93 6:30p	Custody Seal	<i>John Wadde</i>	5/27/93 10:51 am	

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A Summit Company
5010 Stone Mill Road • Bloomington, Indiana 47408

Chain of Custody Record

Analytical Services

COC No.

No 30501

WWES Proj. Mgr.	Project Name	No's Correspond to Bottle Packing List	Analysis Required/Comments					
R. Atan	Keystone Quarterly							
WWES Proj. No. 07029.00	Sampler (Print) M.K ARU RJF RBF QLC MBL Sampler Signature <i>Dana R. Klem</i>							
Date Sampled	Time Sampled	Matrix*	Composite	Grid	Sample Identification	No. of Containers	Container Type	
5-25-93	3:38 p	WTR	X		W - 2	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Volatiles
	3:38 p		X		W - 2 2 e p	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Volatiles
↓	3:50		✓	X	W - 4 d	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Volatiles
5/26/93	9:50A	WTR	XT-5A			2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	11
"	9:55AM	"	XT-5B			2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	11
"	8:30AM	"	XT-5 C			2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	11
	7:10a			X	T - 19 A	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
	8:15a			X	T - 19 B	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Received in good condition
↓	7:50a			X	T - 19 C	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	at 17°C no coolant
Relinquished By: <i>Dana R. Klem</i> <i>Robert W. Craig</i>		Date/Time 5-26-93 6:30p	Received By: <i>Levi's deal</i>	Received to Lab By: <i>Pam Traddle</i>	Date/Time 5/27/93 10:51 AM	Logged in By:	Date/Time	

* Matrix: Water (WTR), Wastewater (WW), Soil (SOIL), Sludge (SLG), Air, Oil, Waste (WASTE)

Chain of Custody Record

Analytical Services

COC No.

No 30502

WWES Proj. Mgr.	Project Name					No's Correspond to Bottle Packing List	Analysis Required/Comments				
R. Aten	Keystone Quarterly										
WWES Proj. No.	Sampler (Print)	reh	ARV	MBL	RJF			RDF	RUC		
07029.00	Sampler Signature	<i>Dana R. Klein</i>									
Date Sampled	Time Sampled	Matrix*	Composite	Grab	Sample Identification				No. of Containers	Container Type	
5/26/93	11:45A	WTR	X		T - 74				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	08:30 a.m.	WTR	X		T - 23				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	09:30 a.m.	WTR	X		T - 25 A				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	09:30 a.m.	WTR	X		T - 25 B				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	11:30 a.m.	WTR	X		T - 22 A				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	11:45 a.m.	WTR	X		T - 22 B				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	11:45 a.m.	WTR	X		T - 9				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	12:05 a.m.	WTR	X		T - 14				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
5/26/93	2:38 pm	WTR	X		T - 1				2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
Relinquished By:			Date/Time		Received By:		Received to Lab By:		Date/Time		
<i>Dana R. Klein</i>			5-26-93 6:30p		<i>Custodian Seal</i>		<i>Tim Waddell</i>		5/27/93 10:51 a.m.		

* Matrix: Water (WTR), Wastewater (WW), Soil (SOIL), Sludge (SLG), Air, Oil, Waste (WASTE)

Chain of Custody Record

Analytical Services

COC No.

No 30504

WWES Proj. Mgr.	Project Name	No's Correspond to Bottle Packing List	Analysis Required/Comments				
				No. of Containers	Container Type	Sample No.	Date Collected
R. Aten	Keystone Quarterly						
WWES Proj. No.	Sampler (Print)						
07029.00	Sampler Signature	A. Belverra Velohage					
Date Sampled	Time Sampled	Matrix*	Composite	Grab	Sample Identification		
5/26/93	2:15p	WTR	X		Blank - 217	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 Howl VOLATILE
5/26/93	2:10p	WTR	X		Blank - 118	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5/26/93	10:00A	WTR	X		T - 6 A	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5/26/93	10:18AM	WTR	X		T - 6 C	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5/26/93	10:25AM	WTR	X		T - 6 B	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5/26/93	2:25pm	WTR	X		Blank - 207	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5/26/93	4:20p	WTR	X		T - 9	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5/26/93	4:20p	WTR	X		T - 9 Rep	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
5/26/93	3:00pm	WTR	X		T - 11 B	2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Relinquished By:	Date/Time	Received By:	Received to Lab By:	Date/Time	Logged in By:		Date/Time
Dana R. Hen	5-26-93 6:30p	Custody Seal	Pam Wildlife	5/27/93 10:51 AM			

* Matrix: Water (WTR), Wastewater (WW), Soil (SOIL), Sludge (SLG), Air, Oil, Waste (WASTE)



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Chain of Custody Record

Analytical Services

COC No.

Nº 30070

WWES Proj. Mgr.		Project Name							No's Correspond to Bottle Packing List	Analysis Required/Comments	Sample ID					
R. Aten		Keystone Quarterly									Sample No's					
WWES Proj. No.		Sampler (Print)		ARV	DRK	MOL	RDF	RIF	RWE		Date Sampled	Time Sampled	Matrix*	Composite	Grab	
07029.00		Sampler Signature		<i>Dana R. Klein</i>												
Date Sampled	Time Sampled	Matrix*	Composite	Sample Identification							No. of Containers	Container Type				
5/25/93	1:45p	WRE	X	W - 1 D							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Volatile w-1 D per Rob Conway 5-28			
	2:35p		X	W - 3 D							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	W-3 D Per Rob Conway 5-28			
	11:00a		X	T - 1 S							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20				
	10:30a		X	B 1 a n K 1 1 2							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20				
	1700		X	T - 1 7							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20				
	5:00p		X	T - 1 B							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20				
	4:50p		X	T - 2 1							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20				
	4:54p		X	T - 2 B							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20				
	4:28p		X	T - 2 A							2	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20				

Resinuished By:

Linguished By: James P. K.
Robert W. Conroy Date/Time
5-26-93
6:30 p.m.

Date/Time
- 16-93
/13 -

Received By:
Custody Deal

Received to Lab By:

Date/Time

Logged in By:

Date/Time

* Matrix: Water (WTR), Wastewater (WW), Soil (SOIL), Sludge (SLG), Air, Oil, Waste (WASTE)



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Chain of Custody Record

Analytical Services

COC No.

Nº 30505

* Matrix: Water (WTR), Wastewater (WW), Soil (SOIL), Sludge (SLG), Air, Oil, Waste (WASTE)

10:51 am

0025